INFORMATION SYSTEMS AND DECISION SCIENCES • ISDS

1100 Introduction to Management Information Systems (3) 1 hr. lecture; 4 hrs. lab. An honors course, ISDS 1101, is also available. Credit will not be given for both this course and ISDS 1100. The course examines the expanded role of information technology in organizations and the development and use of information systems, software, and hardware, the strategic impact of IT, and the nature of the IT career; utilization of management information systems to improve managerial decision making.

1101 HONORS: Introduction to Management Information Systems (Same as ISDS 1100 or ISDS 1102, with special honors emphasis for qualified students. Credit will not be given for both this course and ISDS 1100 or ISDS 1102. 1102 Introduction to Management Information Systems for Business Majors (3) An honors course, ISDS 1101, is also available. Credit will not be given for both this course and ISDS 1101. Role of information technology in business including the development and use of information systems, hardware and software, the strategic impact of IT for businesses, and the nature of the IT career; utilization of management information systems to improve managerial decision making.

2000 Introduction to Business Statistics (3) Prereq.: MATH 1453 or equivalent. An honors course, ISDS 2010, is also available. Credit will not be given for both this course and ISDS 2010. Statistical description and inference; descriptive statistics, sampling, basic probability theory; probability distributions; binomial and normal; sampling distributions; inferential statistics including estimation, one- and two-sample hypothesis tests for means, and chi-square tests.

2001 Statistical Methods and Models (3) Prereq.: ISDS 2000 or equivalent. Continuation of ISDS 2000. Credit will not be given for both this and ISDS 2011. Advanced statistical methods and decision models including ANOVA and linear regression analysis; nonparametric statistics; optimization; decision analysis, risk modeling, and simulation.

2100 HONORS: Introduction to Business Statistics (3) Same as ISDS 2000, with special honors emphasis for qualified students. Credit will not be given for this course and ISDS 2000.

3000 Statistical Methods and Models III (3) Prereq.: ISDS 2001. Continuation of ISDS 2001. Additional applications of sampling distribution; the chi-square, student’s t, and F distributions; estimation; hypothesis testing; regression; multivariate linear regression; simple correlation; analysis of variance; nonparametric tests.

3070 Independent Reading and Research in Information Systems Development (3) Prereq.: ISDS 3500 and consent of instructor. May be taken for a max. of 6 hrs. of cr. Credit is student for registering with a faculty member and selecting an area of reading and/or research.

3075 Internship in Information Systems and Decision Sciences (3) Prereq.: permission of instructor and department chair required. Pass/fail grading. At least the equivalent of 144 hours per semester (3 credits) of learning experience in information systems under the general supervision of an ISDS faculty member and direct supervision of an information systems or decision sciences professional. Grading based on the faculty member’s evaluation, a written report by the professional supervisor, and a written report by the student.

3100 Management of Information Resources (3) Prereq.: ISDS 1100 or ISDS 1101 or ISDS 1102. Information as a resource; issues in information resource management; elements of information systems; development and maintenance of information systems; controlling information resources.

3105 Internet Development Tools (3) Prereq.: ISDS 1100 or equivalent. Use of Internet and its structure for use in business; technologies employed to develop Internet applications; development of business applications for the Internet.

3107 Beginning Programming (3) Prereq.: ISDS 1100 or ISDS 1101 or ISDS 1102. Fundamentals of programming, program design, application development interfaces, debugging, testing, and implementation.

3110 Database Processing for Management (3) Prereq.: ISDS 1100 or equivalent. Structure and function of information management systems; database options and implementation of database management systems in the firm; laboratory practice includes use of a particular software system.

3115 Introduction to Operations Management (3) Prereq.: ISDS 2107 or equivalent. ISDS 3317 is also available. Credit will not be given for both this course and ISDS 3117. Principles and methodologies concerned with organizing, planning and controlling production and service organizations; production and service systems design; process and capacity design; total quality management; production and inventory control; warehousing; material and inventory management.

3117 HONORS: Introduction to Operations Management (3) Prereq.: same as ISDS 3115, with special honors emphasis for qualified students. Credit will not be given for this course and ISDS 3117.

3120 HONORS: Logistics and Supply Chain IT Function (3) Issues in managing the Information Technology (IT) function, including the discussion of how technology has underpinned the “new economy,” forming an IT strategy, structuring and managing the IT function, and emerging trends in IT.

3200 Advanced Business Programming (3) Prereq.: ISDS 3107 and ISDS 3110. Computer programming methods for business systems emphasizing contemporary programming environments and applications development interfaces.

4000 Introduction to Statistical Theory (3) Prereq.: proficiency in basic statistical methods and MATH 1552; knowledge of matric algebra; ability to use in computer analysis. Bayesian method of estimation; principles of tabulation and distribution and inference; theoretical foundations for estimating and testing hypotheses about means, proportions, and other parameters.

4010 Basic Forecasting Models (3) Prereq.: ISDS 3000 or equivalent. Single-equation multiple regression and time series models. Forecasting; applications of exponential smoothing; time series models, including classical decomposition models and exponential smoothing; use of computer programs for regression and time series modeling and forecasting.

4010 Sample Survey Methods (3) Prereq.: ISDS 3000 or equivalent. Designing sampling systems; alternative sample designs; problems of bias; techniques of inference from alternative designs; criteria for selecting optimal sampling plans; methods and applications of sample surveys.

4011 Applied Nonparametric Statistics (3) Prereq.: ISDS 3000 or equivalent. Applied nonparametric statistics including techniques for one-sample problems, comparison of two treatments, paired comparisons, randomized complete blocks, comparison of more than two treatments, tests of randomness and independence, and measures of correlation.

4013 Bayesian Probability and Statistical Methods (3) Prereq.: ISDS 3000 or equivalent. Assessment of subjective probability distributions; Bayesian estimation and inference; application of Bayesian techniques to business problems.

4200 Operations Research for Managerial Decision (3) Prereq.: ISDS 2001 or equivalent. Managerial decision making, including decision analysis, linear programming, transportation models, integer programming, goal programming, queuing applications, dynamic programming, and linear programming in matrix form.

4201 Foundations of Management Accounting (3) Prereq.: credit or registration in ISDS 4020. Theoretical foundations of linear programming in single and multiple objectives; classical nonlinear optimization of unconstrained and constrained functions; Kuhn-Tucker conditions and quadratic programming.

4201 Applied Linear Models (3) Prereq.: ISDS 3000 or equivalent. Development of a unified approach to estimation and hypothesis testing in linear statistical models; emphasis on appropriate specification and interpretation of model; use of computer routines and interpretation of results; balanced and unbalanced analysis of variance models, linear regression models, and analysis of covariance models.

4110 Business Decision Support and Expert Systems (3) Prereq.: ISDS 3110 or equivalent. Laboratory practice includes use of a particular software system. Business decision modeling; constructing a decision support system (DSS); DSS development tools; executive information systems and expert systems; using expert systems to design ES; process, tools, and strategy; integration of DSS and ES.

4111 Enterprise Systems (3) Prereq.: ISDS 3100. Overview of key enterprise system technology: functional, technical, and implementation perspective; emphasis on the process-centered organization and how business processes are designed and integrated into an international business; hands-on computer-based exercises involving a hypothetical global company.

4120 Data Warehouses (Prereq.: ISDS 3100. Data Warehouses for business; topics include: top-down design,
4113 Information Technology Project Management (3) Prereq.: Credit or registration in ISDS 3100. Topics on effectively managing IT projects including: setting goals and objectives; work breakdown structures; project scheduling; managing project resources; evaluation and selection of project management tools; project accounting; extensive use of case involving hands-on computer analyses with state-of-the-art project management software.

4114 Software Quality Assurance (3) Prereq.: ISDS 3100. Modern practices of software quality management; topics include: software process models, software quality attributes, quality tools, project accounting; customer satisfaction measures, and the ISO 9000 quality standard.


4120 Business Data Communications (3) Prereq.: ISDS 3100 or CSCE 1350. Telecommunications in business, including business networking, technical details (hardware, software, protocols, network configurations), network management, and security issues.

4123 Computer Security (3) Prereq.: ISDS 4120. Security management, corporate risk assessment, access control, authentication, transmission control protocol and internet protocol packet content analysis, firewall hardware and software, types of encryption, cryptographic systems, application security issues, and laws governing security and privacy.

4125 Analysis and Design of Management Information Systems (3) Prereq.: ISDS 3110, 3200. Design philosophies and techniques for information systems for management decision making; conceptual design of actual information systems.

4141 Introduction to Data Mining (3) Prereq.: ISDS 3100. Fundamental methodology and techniques used in data mining, with particular emphasis on business applications; topics include market basket analysis, memory-based reasoning, clustering, link detection, analysis trees, decision trees and rule induction, neural networks, and genetic algorithms.

4160 Sourcing in China (3) Network clusters; cost, competitive pressures, sourcing practices and cases in industries. Topics include: software development process models, software quality attributes, quality tools, project accounting; customer satisfaction measures, and the ISO 9000 quality standard.

4167 Operations Planning and Control (3) Prereq.: ISDS 3115. Perspective for managers to integrate operations strategy into an overall business strategy; issues in selection of the capabilities, characteristics, and configuration of facilities; process/technologies; aggregate capacity; vertical integration; operations infrastructure; organizational structure and jobs; extensive use of case analyses drawn from service and manufacturing industries.

7125 Advanced Operations Management (3) Prereq.: BADM 7120 or equivalent. Topics of effectively managing projects including setting goals and objectives, project planning, evaluation, and control; integer programming, and project accounting; extensive use of case involving hands-on computer analyses with state-of-the-art project management software.

7272 Operations Strategy (3) Prereq.: BADM 7120 or equivalent. Perspective for managers to integrate operations strategy into an overall business strategy; issues in selection of the capabilities, characteristics, and configuration of facilities; process/technologies; aggregate capacity; vertical integration; operations infrastructure; organizational structure and jobs; extensive use of case analyses drawn from service and manufacturing industries.

7275 Information Systems Research (3) Prereq.: ISDS 7110 or equivalent. Contemporary topics in advanced information systems research; survey of information systems analysis and design; introduction to business data communication; database management systems and knowledge bases; enterprise-wide systems and information systems control.

7285 Information Technology and Entrepreneurship (3) Prereq.: BADM 7120 or equivalent. Topics of information technology and entrepreneurship; economic, globalization, and outsourcing, information technology-based business opportunities, technological change, intellectual property, competitive analysis, technology, process development, evaluation, effectiveness, causation,
knowledge management, technological intrapreneurship.
7510 Database Management (3) Prereq.: BADM 7050. Analysis and implementation of database concepts based on the relational database model; data modeling using entity-relationship (E-R) diagramming; logical and physical database design; database implementation; database considerations; data and database administration; emerging database technologies and advanced database applications.

7511 Information Management (3) Prereq.: IDS 7510 or equivalent. Decision support systems, online analytical processing, multidimensional data modeling, web data mining, data marts, data mining, knowledge management, Internet business intelligence.
7520 Network Information Systems (3) Prereq.: BADM 7050. Study of network systems, introducing computer networks, protocols, network operating systems, and network management; LAN, WAN design; Internet technology; network standards.
7522 Internet Systems Development (3) Prereq.: IDS 7520. In-depth look at Internet applications architecture, server-side programming, web-data connectivity, integration of Web and other business applications, and Web development methods; emphasis on self-management, cross-project coordination, technology and time management, construct Internet based systems and manage Internet based systems development.
7530 Information Systems Analysis and Design (3) Prereq.: BADM 7510. Both courses may be taken concurrently. Analysis and design of information systems from a management perspective; software development methodology; techniques and requirements determination; feasibility determination; project management; evaluation of a software development strategy and application design; modeling techniques; E-R diagrams, and DFDs; systems implementation.
7535 Information Technology Management (3) Prereq.: BADM 7510. Study of the organization of information technology (IT) resources; planning and management of IT strategy, applications; hardware/software infrastructure, information resources, and IT professionals; organization and governance of the IT function, IT policies and standards, measurement of IT investments and returns, and deployment of new information technologies.
7540 Electronic Commerce (3) Prereq.: BADM 7050. Use of information technology and the Internet in creating new forms of marketing; creating a marketing landscape; disintermediation/reintermediation; and virtual organization.
7543 Electronic Commerce II (1.5) Prereq.: IDS 7540. Continuation of IDS 7540. Advanced management issues, organizing principles and technologies; working in electronic communities; newsgroups, virtual communities, extranet and intranet.
7545 Collaborative Computing (1.5) Prereq.: BADM 7050. Foundation of collaborative computing; issues of motivation, synchronization, anonymity, group size, group proximity, and group tasks.
7550 Enterprise Systems (3) Prereq.: BADM 7050. Study of the broad area of Integrated Enterprise-wide Systems; emphasis on features and capabilities of enterprise systems and the related theory; the methodology used to implement these systems in organizations, and the implications of their deployment in organizations.
7551 Enterprise Change (3) Prereq.: IDS 7530. Foundation of critical issues in the design and implementation of business and information systems change including business process reengineering, project and change management, and information systems design and management; emphasis on the systems perspective of business, and the change that these enabling emerging and disruptive technologies and systems permit that have the greatest impact on business and industries.
7555 Auditing Enterprise System (1.5) Prereq.: IDS 7530 and ACCT 7233. Principles of auditing enterprise wide information systems in business; audit plans; controls and security issues.
7560 Social and Organizational Issues in MIS (3) Prereq.: BADM 7050. Impact of electronic communities on organizations; implications of design choices on business; ethical considerations.
7565 Global Information Technology Management (3) Prereq.: BADM 7050. National IT policies; IT and national culture; emerging global business practices in multinational corporations; IT diffusion in developed versus developing countries; IT and national development; global electronic commerce; global telecommunications; and comparison of advantage through global IT management.
7910 Contemporary Issues in Production/Operations Management (3) Prereq.: advanced PhD standing or consent of instructor. May be taken for a max. of 9 hrs. of credit when topics vary. Philosophical foundations and contemporary implications in production/operations management.
7920 Contemporary Issues in Management Information Systems (3) Prereq.: advanced PhD standing or consent of instructor. May be taken for a max. of 6 hrs. of credit when topics vary. Philosophical foundations and contemporary implications in management information systems.
7950 Research Seminar in Information Systems Topics (3) Required for all PhD students. May be taken for a max. of 6 sem. hrs. of credit when topics vary. Contemporary research and critical issues in information systems research.
7950 Project (3-6) Prereq.: permission of instructor. May be taken for a max. of 6 hrs. of credit. Pass-fail grading.
8000 Independent Research (1-12 per sem.) ‘S’73 credit. 8900 Pre-dissertation Research (1-9) May be repeated for credit.
9000 Dissertation Research (1-12 per sem.) ‘S’7 U’ grading.

INTERIOR DESIGN • ID

General education courses are marked with stars (★).

1051 Introduction to Interior Design (3) Contemporary practice of interior design as a profession; responsibilities of the interior designer.

1171 Basic Design Foundation (3) V Prereq.: controlled admission to program in interior design at first year level or permission of department. 6 hrs. studio. Credit will not be given for this course and ART 1011. Basic design principles and problems with an emphasis on two-dimensional principles and elements; foundation for the graphical exploration of interior space.

1780 Interior Design Technical Drawing (3) F,S,Su Prereq.: controlled admission to program in interior design at first year level or permission of department. 4 hrs. studio. Introduction to the graphical tools, techniques, and conventions designers use to communicate architectural ideas; an immersion in the graphic language of drawing.

2722 Interior Design Awareness I (3) V Not open to interior design majors. Discipline of interior design; principles presented in historical and philosophical contexts; analysis of the use of spatial elements.

2750 Interior Design Studio I (4) F Prereq.: admission to professional program in interior design at first year level or permission of department. Concurrent enrollment in ID 2781. 8 hrs. studio. Basic design principles in the built environment; emphasis on design process, form and principles of spatial organization.

2751 Interior Design Studio II (4) S Prereq.: ID 2750 or equivalent. 8 hrs. studio. Exploration and analysis of design decisions related to interior space.

2770 Color and Illumination I (3) S Prereq.: sophomore standing in the major; nonmajors by consent of instructor only. 1 hr. lecture; 4 hrs. studio. Nature, theory, and art of color and light applied to two- and three-dimensional basic design projects.

2774 Interior Construction and Systems (3) F Prereq.: admission to professional program in interior design at first year level or permission of department. Concurrent enrollment in ID 2750. 6 hrs. studio. Graphic representation methods used to illustrate and investigate form, spatial order, and the design process.

2785 Computer Visualization (3) F Prereq.: admission to professional program or consent of instructor. 1 hr. lecture; 4 hrs. lab. Computer drafting and three-dimensional modeling for spatial design.

3741 History of Interior Design and Decoration I (3) F Development of interior design, decoration and furnishings through the early 19th century; design as an expression of cultural values.

3742 History of Interior Design and Decoration II (3) S Design, decoration, and furnishings of the 20th and 21st centuries; interiors; social, industrial, and technological influences on modern design.

3751 Interior Component Design (3) F-S-V Prereq.: ID 2751 or equivalent. 1 hr. lecture; 4 hrs. studio. Design, materials, and construction techniques of interior components; basic scale model and computer simulated design prototypes.

3752 Interior Design Studio III (4) F Prereq.: ID 2751 and ID 3751. 8 hrs. studio. Comprehensive analysis of design concept/image; design implications of function, space, and scale.

3753 Interior Design Studio IV (4) S Prereq.: ID 3752 or equivalent. 8 hrs. studio. Design development of interior environments.

3759 Special Studies in Interior Design (1-6) F,Su,V Prereq.: consent of instructor. May be taken for a max. of 6 sem. hrs. of credit. Advanced studio work in predetermined areas of specialization.

3762 Advanced Interior Internship (3) F,Su,V Prereq.: completion of all 2000-level interior design courses and consent of instructor. Pass-fail grading. At least 20 hours of work per week (A 50 hours per week for summer session). Supervised by an interior design faculty member and a professional designer in an approved firm.

3763 Field Studies in Interior Design (3) F,Su,V Prereq.: selection into the professional program in interior design at the sophomore year or permission of instructor. Intensive travel experiences in a variety of locales; participation in local, national, and/or international journeys with an emphasis on the built environment.

3782 Interior Design Construction Documents (3) Prereq.: ID 2751 or equivalent. 1 hr. lecture; 4 hrs. studio. Development of construction documents for interior projects; design and documentation of interior architectural details.

3786 Advanced Computer Visualization (3) F,Su,V Prereq.: admission to professional program or permission of instructor. 1 hr. lecture; 4 hrs. lab. Advanced topics in computer drafting and three-dimensional modeling for spatial design.

4720 Seminar in Interior Design (3) F Prereq.: ID 3752 or equivalent. Research, discussions, and presentations related to contemporary interior design practice.

4754 Interior Design Studio V (4) F Prereq.: ID 3753 or equivalent. 8 hrs. studio. Advanced application of the design process; development of comprehensive solutions to complex interior design problems.

4755 Interior Design Studio VI (4) S Prereq.: ID 4754 or equivalent. 8 hrs. studio. Advanced professional problems in interior design.

4756 Design synthesis in a comprehensive capstone project.

4756 Independent Study Project (3) S Prereq.: ID 4720. Concurrent enrollment in ID 4755. 6 hrs. studio. Execution of a project selected by the advanced student with guidance from an advisory committee.

4758 Advanced Studies in Interior Design (1-6) F,Su,V Prereq.: consent of instructor. Advanced studio work in an area of special interest.

4759 Independent Study in Interior Design (3) May be taken for a max. of 6 hrs. of credit when topics vary. May be repeated for up to 12 hours credit when topics vary. Independent study relevant to the field of international studies.

3092 Fundamentalisms and Religious Nationalism (3) See REL 3092.

3099 Undergraduate Internship in International Studies (3) F,Su Open to undergraduate students approved by the International Studies Program. May be counted toward the total number of hours required for a major in International Studies but not toward fulfilling field requirements. May be taken for a max. of 6 hrs. of credit when topics vary. Program of study, research, and work in governmental or private agencies concerned with international policy.

3786 Religion of Islam (3) See REL 3786.

3991 Study Abroad in Africa (1-6) May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics, or geography of Africa.

3992 Study Abroad in the Middle East (1-6) May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics, or geography of the Middle East.

3993 Study Abroad in Asia (1-6) May be repeated for up to 12 hours credit when topics vary. Studies in the history, culture, economics, politics, or geography of Asia.

3994 Study Abroad in Europe (1-6) May be repeated for up to 12 hours credit when topics vary. Studies in the