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# Information and Decision Systems

**OFFICE: Student Services 2411**  
**TELEPHONE: (619) 594-5316**  
**FAX: (619) 594-3675**

In the College of Business Administration

## Faculty

John M. Penrose, Ph.D., Professor of Information and Decision Systems, Chair of Department  
James R. Beatty, Ph.D., Professor of Information and Decision Systems  
Marie E. Flatley, Ph.D., Professor of Information and Decision Systems  
Alexis Koster, Ph.D., Professor of Information and Decision Systems (Graduate Adviser)  
James R. Lackritz, Ph.D., Professor of Information and Decision Systems  
Feraidoon Raafat, Ph.D., Professor of Information and Decision Systems (Graduate Adviser)  
Gretchen N. Vik, Ph.D., Professor of Information and Decision Systems  
Yeongling Helio Yang, Ph.D., Professor of Information and Decision Systems  
Theophilus Addo, Ph.D., Associate Professor of Information and Decision Systems  
Donald Amoroso, Ph.D., Associate Professor of Information and Decision Systems  
Annette C. Easton, Ph.D., Associate Professor of Information and Decision Systems  
George K. Easton, Ph.D., Associate Professor of Information and Decision Systems  
Carolena L. Lyons-Lawrence, Ph.D., Associate Professor of Information and Decision Systems  
Bruce A. Reinig, Ph.D., Associate Professor of Information and Decision Systems  
Murray Jennex, Ph.D., Assistant Professor of Information and Decision Systems  
Bongsik Shin, Ph.D., Assistant Professor of Information and Decision Systems (Graduate Adviser)  
Wesley Szu-Way Shu, Ph.D., Assistant Professor of Information and Decision Systems

## Courses Acceptable on Master's Degree Programs in Business Administration (IDS)

### UPPER DIVISION COURSES

#### 515. Advanced Programming for Business (3) I,II

Prerequisite: Information and Decision Systems 315 or knowledge of one computer programming language.

Advanced programming for business applications in widely used programming languages. Advanced concepts of data structures used in business programming, control structures, and program structures. Selection of programming languages for particular purposes. Not open to students with credit in Information and Decision Systems 383 or 384.

#### 520. Java Programming for Business Applications (3)

Prerequisite: A course in C/C++ programming.

Comprehensive coverage of both Java applications and applets with emphasis on business application programs using graphical user interfaces. Business applications include multimedia programs, network processing, and database connectivity.

### GRADUATE COURSES

#### 609. Management Information Systems (3)

Role of information in organizational management. Typical management information subsystems. Design and management of management information systems.

#### 610. Electronic Business Technologies (3)

Prerequisite: Classified graduate standing.

Basic concepts of e-business technologies. Development tools, languages, processes, and methodologies for electronic business applications.

#### 620. Electronic Business Infrastructures (3)

Prerequisite: Information and Decision Systems 610.

Advanced information technology concepts associated with e-business and e-commerce infrastructure and systems architecture.

#### 630. IT Management Strategies for E-Business (3)

Prerequisite: Information and Decision Systems 620.

Analysis and application of strategic information technology management initiatives, designs, and architectures for attaining an organization's e-business goals.

#### 680. Information Systems Hardware and Software (3)

Prerequisite: Information and Decision Systems 609.

Computer architecture, programming languages, programming systems, and operating systems.

#### 683. Program, Data, and File Structures (3)

Prerequisite: Information and Decision Systems 609.

Program structures and data structures commonly used in business processing. File organization and processing strategies. Improving storage and processing efficiencies.

#### 686. Database Management Systems (3)

Prerequisite: Information and Decision Systems 609.

Applications of database management systems in business. Design and administration of database processing systems applications.

#### 687. Data Communications and Distributed Data Processing (3)

Prerequisite: Information and Decision Systems 680.

Applications of data communications hardware, software, and services in business data processing. Design and implementation of network applications and distributed processing systems.

#### 688. Information Systems in Organizations (3)

Prerequisite: Classified graduate standing.

Evolutionary role of information systems: from support function to strategic entity, planning, organizing, and administering the information systems function. Information and its relationships to business decision making. Global and ethical aspects of information technology.

#### 691. Decision Support Systems (3)

Prerequisite: Credit or concurrent registration in Information and Decision Systems 688.

Design, implementation, and integration of computerized decision support systems into business management. Problem representation, modeling, and simulation.

### **695. Information Systems Development I (3)**

Prerequisite: Information and Decision Systems 609.

System development life cycle. Life cycle methodologies with emphasis on analysis of requirements using structured methodology and automated tools. Feasibility study, developmental strategies, needs management, and prototyping.

### **696. Seminar in Selected Topics (3)**

Intensive study in specific areas of information systems. May be repeated with new content. See Class Schedule for specific content. Maximum credit six units applicable to a master's degree. Maximum combined credit of six units of 596 and 696 applicable to a 30-unit master's degree.

### **697. Information Systems Development II (3)**

Prerequisite: Information and Decision Systems 695.

Business information systems design, installation, and implementation as part of the systems development life cycle. Structured design, prototyping, controls, the make vs. buy decision, selection of hardware and software.

### **700. Artificial Intelligence Applications for Business (3)**

Prerequisite: Information and Decision Systems 609.

Applications of artificial intelligence techniques to business. Strategies for representing knowledge. Knowledge engineering, knowledge base and inference. Use of consultation paradigms, languages, tools, and artificial intelligence environment. Developing expert systems for business.

### **705. Communication Strategies (3)**

Prerequisite: Classified graduate standing.

Development of advanced written, oral, and interpersonal communication strategies for the business environment.

### **742. Seminar in Computer Simulation for Business (3)**

Prerequisite: Business Administration 662.

Design and analysis of computerized business simulation models.

### **744. Seminar in Quality and Productivity Management (3)**

Prerequisite: Business Administration 662.

Advanced concepts, methods, and implementations of quality and productivity management in the context of global economy. Total quality management, statistical process control, quality function deployment, Taguchi approach, Baldrige process, international quality standards and reengineering.

### **748. Seminar in Advanced Data Analysis (3)**

Prerequisite: Business Administration 652.

Applications of various statistical techniques and design of experiments for business. Advanced ANOVA and Taguchi designs, multiple regression modeling methodologies, and multivariate techniques, such as factor analysis, judgement analysis, multiple discriminant analysis, multivariate analysis of variance, and canonical correlation.

### **749. Seminar in Applied Behavioral Measurement (3)**

Prerequisite: Business Administration 652.

Measurement procedures useful in analyzing such areas as teamwork, leadership, job satisfaction, attitudes, motivation, total quality management, and customer satisfaction. Development and use of technologies including Likert, Thurstone, Guttman, paired-comparison, forced-choice, semantic-differential, C-E diagrams, and review of existing instruments used in business-related settings.

### **750. Project Management (3)**

Prerequisite: Business Administration 662.

Managing projects. Includes network modeling, defining activities and events, cost estimating and reporting, single and multiple resource allocation and leveling. Computerized project management software will be used.

### **752. Seminar in Materials Requirement Planning (3)**

Prerequisite: Business Administration 662.

Product structure, master scheduling and materials requirement planning (MRP).

### **753. Global Supply Chain Management (3)**

Prerequisite: Classified graduate standing.

Advanced concepts, method, and implementation of global supply chain strategies and management; global sourcing and supplier development; global logistic network and management; information technology and e-business for supply chain; supply chain design and optimization; performance metrics and measurements.

### **754. Seminar in Operations Planning and Strategy (3)**

Prerequisite: Business Administration 662.

Strategic issues in operations and their integration with other functional areas. Includes operations strategy, product and process planning, experience curves, productivity measurements, and information technology implementation.

### **790. Directed Readings in Information and Decision Systems (3) Cr/NC**

Prerequisite: Advancement to candidacy.

Preparation for the comprehensive examination for students.

### **797. Research (3) Cr/NC/RP**

Prerequisite: Advancement to candidacy.

Research in the area of information and decision systems. Maximum credit six units applicable to a master's degree.

### **798. Special Study (1-3) Cr/NC/RP**

Prerequisite: Consent of staff; to be arranged with department chair and instructor.

Individual study. Maximum credit six units applicable to a master's degree.

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