

***Opportunities Through  
Academic Excellence***



***Information and  
Decision Sciences***



THE UNIVERSITY OF TEXAS AT EL PASO

# About The Faculty

The list below provides a summary on our faculty by position, highest degree attained, granting institution, teaching areas, and research interests.

**Godwin J. Udo**, Southwestern Bell *Professor of CIS & Chair*, Ph.D., Information Systems, Clemson University (1990).  
*Teaching*: IT Strategy, Management Information Systems, Artificial Intelligence, Decision Support Systems, Databases.  
*Research*: IT Outsourcing, IT Application to Manufacturing, AI/DSS, Technology Transfer, E-Business Effectiveness.

**Kallol Bagchi**, *Assistant Professor of CIS* (2002); Ph.D., Information Systems, Florida Atlantic University (2001).  
*Teaching*: Data Communications, Management Information Systems, E-Commerce, Java/Web-based Programming.  
*Research*: Impacts of IT Diffusion, Data Warehousing, IT Adoption, Global IT.

**Leopoldo A. Gemoets**, *Associate Professor of CIS* (1987); D.Sc., Environmental Engineering, Santa Lucia Health Sciences University (1983).  
*Teaching*: GIS/DSS, Management Information Systems, Systems Analysis and Design.  
*Research*: International Dimensions of Information Technology.

**Amit K. Ghosh**, *Lecturer of CIS* (2000); MSEE, Electrical Engineering, Tuskegee University (1987); MFA, UTEP (2002).  
*Teaching*: Programming, Databases, and the Internet.

**Laura Hall**, *Associate Professor of CIS* (1996); Ph.D., Management Information Systems, Florida State University (1997).  
*Teaching*: Systems Analysis and Design, Management Information Systems, IT Impacts in Organizations.  
*Research*: Multimedia Design, Hypermedia/Hypertext, Interface Design, Distance Learning.

**Jimmie Joseph**, *Assistant Professor of CIS* (2002); Ph.D. Information Systems, The University of Pittsburgh (2002).  
*Teaching*: Management Information Systems, Visual Basic, Systems Analysis and Design, Database Management.  
*Research*: E-Commerce, Human/Computer Interaction, Management of Information Systems.

**Mark Kesh**, *Lecturer of CIS* (2001); A.B.D., Industrial Engineering, The University of Cincinnati.  
*Teaching*: Database Management, Visual Basic, Systems Analysis and Design, Object Oriented Programming.

**Peeter J. Kirs**, *Associate Professor of CIS* (1994); Ph.D., Management Information Systems, S.U.N.Y. at Buffalo (1987).  
*Teaching*: Management Information Systems, Database Management, Data Structures, Systems Analysis, ES and DSS.  
*Research*: Systems Development, Man-Machine Interfaces, Database Modeling, Natural Language Processing.

**Francisco J. Lopez**, *Assistant Professor of POM* (2000); Ph.D., Business Administration (POM Major), University of Mississippi (1999).  
*Teaching*: Production & Operations Management, Service Management, Production Planning, Quantitative Methods.  
*Research*: Data Envelope Analysis, Linear Programming, Convex Analysis, Polyhedral Set Theory.

**Ralph S. McCrae**, *Lecturer of CIS* (1988); M.S., Counseling and Personnel Services, Drake University (1986).  
*Teaching*: Computer Applications, Management Information Systems, Systems Analysis and Design, Business Applications Programming.

**Mo Adam Mahmood**, *Mayfield Professor of CIS* (1988); Ph.D., Management Information Systems, Texas Tech University (1982).  
*Teaching*: E-Commerce, Database Management, Management Information Systems, ES and DSS.  
*Research*: E-Commerce-Related Issues, IT Impacts in Organizational Performance, Group Decision Support.

**Somnath Mukhopadhyay**, *Assistant Professor of QMB* (2002); Ph.D., Management Science, Arizona State University (1992).  
*Teaching*: Business Statistics, Quantitative Methods, Productions and Operations Management.  
*Research*: Solving Pattern Classifications Programs Using Linear Programs, Neural Network, Airline and Hotel Revenue Management, Machine Learning, Forecasting.

**Adriano O. Solis**, *Assistant Professor of POM* (2000); Ph.D., Management Science, University of Alabama (1997).  
*Teaching*: POM, Inventory & Materials Management, Supply Chain Management, Project Management, QMB.  
*Research*: Supply Chain Management, Inventory Management, Enterprise Resource Planning Systems.

**Joaquin Tadeo**, *Lecturer of POM* (2000); MBA, The University of Texas at El Paso.  
*Teaching*: Business Statistics, Quantitative Methods, Introduction to Computer Applications, Production OP Management.

**Rajesh Tahiliani**, *Lecturer of QMB/POM* (1991); M.S., Manufacturing Engineering (1991), MBA, UTEP (1993).  
*Teaching*: Business Statistics, Quantitative Methods, POM, Introduction to Computers.

**Jack Vaughn**, *Lecturer of QMB/CIS* (1994); M.S., Operations Research, US Naval Postgraduate School (1973).  
*Teaching*: Business Data Communications/Networking, ES and DSS, Statistics, QMB, Quality Planning & Control.

**Antonio Woo**, *Lecturer of POM* (2002); M.S. Electrical Engineering, UTEP (1972).  
*Teaching*: POM, Project Management, Inventory Management, Introduction to Computers.

# About The IDS Department



The Information and Decision Sciences (IDS) Department was formed in 1992 to provide service courses in Computer Information Systems (CIS), Production and Operations Management (POM) and Quantitative Methods (QMB) for the College of Business. Since then, we have expanded and now offer two majors in the Bachelor of Business



Administration (BBA) program and two concentrations in the Master of Business Administration (MBA) program. We share responsibility for the Master of Information Technology (MIT) degree, and will contribute courses to the forthcoming Ph.D. program in International Business. We are also part of the University of Texas Tele-Campus, offering both undergraduate and graduate distance learning courses.

We are the largest department in the College of Business Administration with approximately 250 undergraduate majors, 40 MBA students concentrating in CIS or POM, and over 50 students enrolled in the MIT Program. Our graduates hold a variety of positions in the information, manufacturing, production and service industries throughout the world.



Our faculty members are well known for their teaching and research, and have received national and international recognition and awards for both. The department serves the local, national, and international communities by developing, refining, applying, and transferring approaches to education that encourage students to pursue their education to their full potential. The department serves as a leading model of education in this process.

## What Programs Of Study Are Available?

### The Bachelor of Business Administration (BBA) Major in CIS

Teaching Faculty: *Bagchi, Gemoets, Ghosh, Hall, Joseph, Kesh, Kirs, McCrae, Mahmood, Udo, Vaughn*



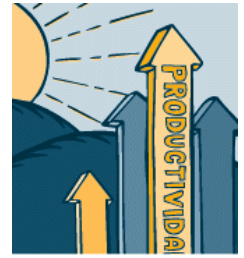
The Computer Information Systems option provides students with the technical and managerial knowledge and skills required to enter the challenging and dynamic field of computer and information systems. The program is designed to meet the business community's demand for properly trained information systems specialists as well as providing the students with a solid background in management and decision making to enable them to achieve career advancement in this rapidly expanding field. The students acquire knowledge in a variety of topics: a number of

widely used programming languages and applications; the design, implementation and management of information systems; telecommunications; database development and manipulation; and advanced system concepts and technologies.

# The Bachelor of Business Administration (BBA) Major in POM

Teaching Faculty: *Lopez, Mukhopadhyay, Solis, Tahiliani, Vaughn*

The courses offered in the area of POM allow students to acquire skills and knowledge to manage production systems that create products and services in both the industrial and service sectors of the economy. The students receive a broad overview of operations from product design, process selection, facility layout and location through operations planning and scheduling. Topics include: material requirements planning; just-in-time systems; project management; logistics management; and quality planning and control. The POM major is intended to prepare students for positions in manufacturing management, supply management, service operations, or government operations. By completing an appropriate combination of courses, it is possible for students with a declared POM major to select an emphasis in either Supply Chain Management (SCM) or Manufacturing Management (MM).



## **Supply Chain Management (SCM):**

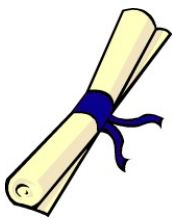
Supply Chain Management involves integrating and managing key business processes associated with the flow and transformation of goods and services, as well as the attendant information flows, both within and between the various organizations along the supply chain. It is intended to achieve a sustainable competitive advantage, minimize system-wide costs, satisfy service level requirements, and maximize the overall value generated by the supply chain. The Supply Chain Council, organized in 1996-1997 by representatives of a number of companies including Procter & Gamble, Lockheed Martin, Texas Instruments, Compaq, and Bayer (see [www.supply-chain.org](http://www.supply-chain.org)) emphasizes that SCM includes key business processes such as supply and demand management, sourcing of raw materials and parts, manufacturing and assembly, tracking of warehousing and inventory, order entry and management, distribution across all channels, and delivery to the customer.

## **Manufacturing Management (MM):**

Manufacturing Management pertains to direct manufacturing functions such as cutting, shaping, grinding, and assembly; and also involves concerns of product design and development; process selection; plant location and design; capacity management; manufacturing planning and control; quality control; workforce organization; equipment maintenance; product distribution; and inter-plant coordination.

# The Master of Business Administration (MBA) Concentrations in CIS and SCM

Teaching Faculty: *Bagchi, Gemoets, Hall, Joseph, Kirs, Lopez, Mahmood, Mukhopadhyay, Solis, Udo*



Students take core courses in the MBA program and graduate with that degree. In addition, they take a set of core courses in CIS or SCM. The degree program consists of 36 semester hours - 24 hours comprised of the set of core courses and 12 hours in the area of concentration.

The CIS courses introduce the students to key management concepts involving the design, construction, and control of information processing activities within an organization; the strategic role of information technology in rapidly changing business environments; and the new business models and competitive strategies emerging from the electronic marketplace.

The SCM concentration includes courses relevant to the analysis, design, operation, and improvement of the company's supply chain. In particular, students appreciate the importance and complexity of supply chain management within a global operations setting.

## The Master of Information Technology (MIT) Program

Teaching Faculty: *Bagchi, Gemoets, Hall, Joseph, Kirs, Mahmood, Udo*

The MIT program is intended for graduate students who may have obtained an undergraduate or graduate degree in an area outside of the Business and/or Computer Information Systems areas, but now find themselves involved in managing information technology. Students are given instruction on the management of information technology with an emphasis on applying the skills gained to their specific discipline.



The program requires a total of 30 credit hours of core and elective courses offered jointly by the IDS and Computer Science departments.

## The On-line Master of Business Administration (MBA) Program

Teaching Faculty: *Hall*



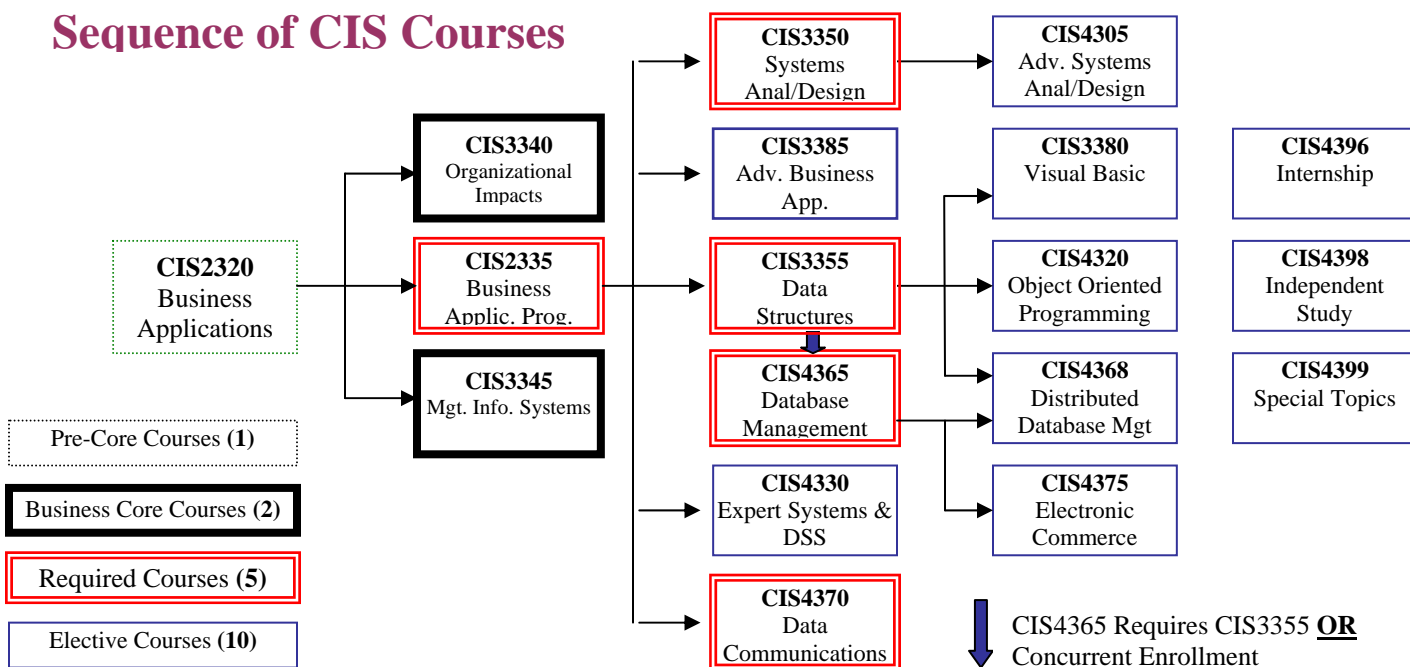
The IDS Department contributes a course to the MBA online program in General Management which is a cooperative program between eight of the University of Texas System Schools. The program has recently been ranked by U.S. News & World Report as one of the best online programs in the nation. The program may be taken by any qualified and accepted student from any location in the world. It provides the students with the tools necessary to become leaders in the workplace of tomorrow. This challenging degree program pools the impressive resources and diverse perspectives of the eight University of Texas System institutions.

The students will find a highly skilled, statewide team of professors presenting a broad and interactive curriculum. Areas of study in this General Management degree include accounting, finance, administration, business law, economics, marketing, statistics, and technology. Courses are designed for a clear understanding of a marketplace that has become increasingly complex with the addition of new technologies and communication tools.

# What Undergraduate Courses Are Available?

## Undergraduate CIS Courses

The IDS Department offers 18 undergraduate CIS courses. There are five required courses for CIS majors, 10 elective courses of which CIS majors are required to complete three, one pre-core course and two business-core courses.



**CIS 2320: Introduction to Computers and Computer Application Software (3-0)** This literacy course introduces the student to the essentials of computer hardware and software. The personal computer operating system and applications such as spreadsheet, database, Internet browsers, and e-mail are discussed. Emphasis will be placed on spreadsheet and database to solve typical business problems. The student will learn data sharing between applications.

**CIS 2335: Introduction to Business Applications Programming (3-0)** The course introduces the student to programming in the most widely-used computer language, Cobol. Emphasis is on sound and problem-solving models and on good programming practice, following structured and modular program design, development, testing, implementation and documentation of business problems. An introduction to Web Cobol is included. Prerequisite: CIS 2320

**CIS 3340: Organizational Impact of Information Technology (3-0)** The course integrates both computer concepts and information systems concepts, and provides a strong managerial emphasis. Impact of information technology as well as organizational, global, strategic, and end-user computing issues will be covered. Prerequisite: Upper-division standing

**CIS 3345: Management Information Systems (3-0)** An introduction to the fundamentals of management information systems: their dimensions, structures, and requirements. Coverage will include the design, development, implementation, and management of information systems. Prerequisite: CIS 2320

**CIS 3350: Business Systems Analysis and Design (3-0)** A study of the systems analysis in a business environment. Coverage of the tools, techniques, and procedures used to conduct an analysis of the business system including prototyping, CASE, and 4GL. This course will emphasize the design phase of systems analysis projects. Prerequisites: (1) CIS 2335 or (2) CIS 3340 and ACCT 3320.

**CIS 3355: Business Data Structures (3-0)** Techniques and management of computer files on secondary storage devices, including linked lists, trees, queues, and other physical data structures. Logical data structures for databases are examined. Prerequisite: CIS 2335

**CIS 3380: Programming with Visual Basic (3-0)** The course introduces the visual basic programming language and environment providing an understanding of fundamental programming concepts required to develop end-user business applications in object-oriented, event driven environments. Prerequisite: CIS 3355

**CIS 3385: Advanced Business Application Programming (3-0)** All advanced features of the Cobol programming language are examined including analysis of sequential, indexed, relative, and direct access file processing systems. Also covered are sort and merge techniques, repeated-list, processing, the use of call and copy verbs and interactive processing. An introduction to Object Cobol is included. Prerequisite: CIS 2335 or CIS 3235

**CIS 4305: Advanced Business Systems Development (3-0)** The application of concepts acquired in systems analysis and design. Students will analyze the needs of an organization and design an information system for that organization. Particular emphasis will be placed on the need for auditing and control of that system. Coverage will include dealing with problems of installation and security. Prerequisite: CIS 3350

**CIS 4320: Object Oriented Programming Environment (3-0)** A study of programming emphasizing object-oriented concepts to solve real world business problems. Prerequisite: CIS 3355

**CIS 4330: Expert Systems and Decision Support Systems (3-0)** A study of artificial intelligence, expert systems, and decision support systems concepts and technologies applied to cover development, implementation, and management of expert systems and decision support systems for business organizations. Tools such as languages, shells, and hardware for utilizing artificial intelligence in designing expert systems and decision support systems are covered. Prerequisite: CIS 2335, CIS 3340 or ACCT 3320

**CIS 4365: Database Management (3-0)** Normalized database tables are designed, created, and manipulated using an SQL based relational database management system (DBMS). Common database utilities are used and proto-typing is practiced. Emphasis is placed on the problems and issues of managing in a database environment. Prerequisites: CIS 3355 or Concurrent Enrollment in CIS 3340 or ACCT3320

**CIS 4368: Distributed Database Management (3-0)** The course is an extension of the first Database Management course with a focus on development of advanced, multi-user and distributed database applications using Report Builder or another SQL front-end package. Prerequisite: CIS 4365 or CIS 3465

**CIS 4370: Business Data Communications (3-0)** An introduction to network components, transmissions links, link control, protocols, network topologies, error detection and correction methods, network management and security, local area networks, electronic commerce, virtual private networks, and use of the Internet in business. Prerequisite: CIS 2320 or CIS 3220

**CIS 4375: Introduction to Electronic Commerce (3-0)** The course gives students hands-on experience in designing e-commerce websites using appropriate software. Prerequisites: CIS 4365 or departmental approval

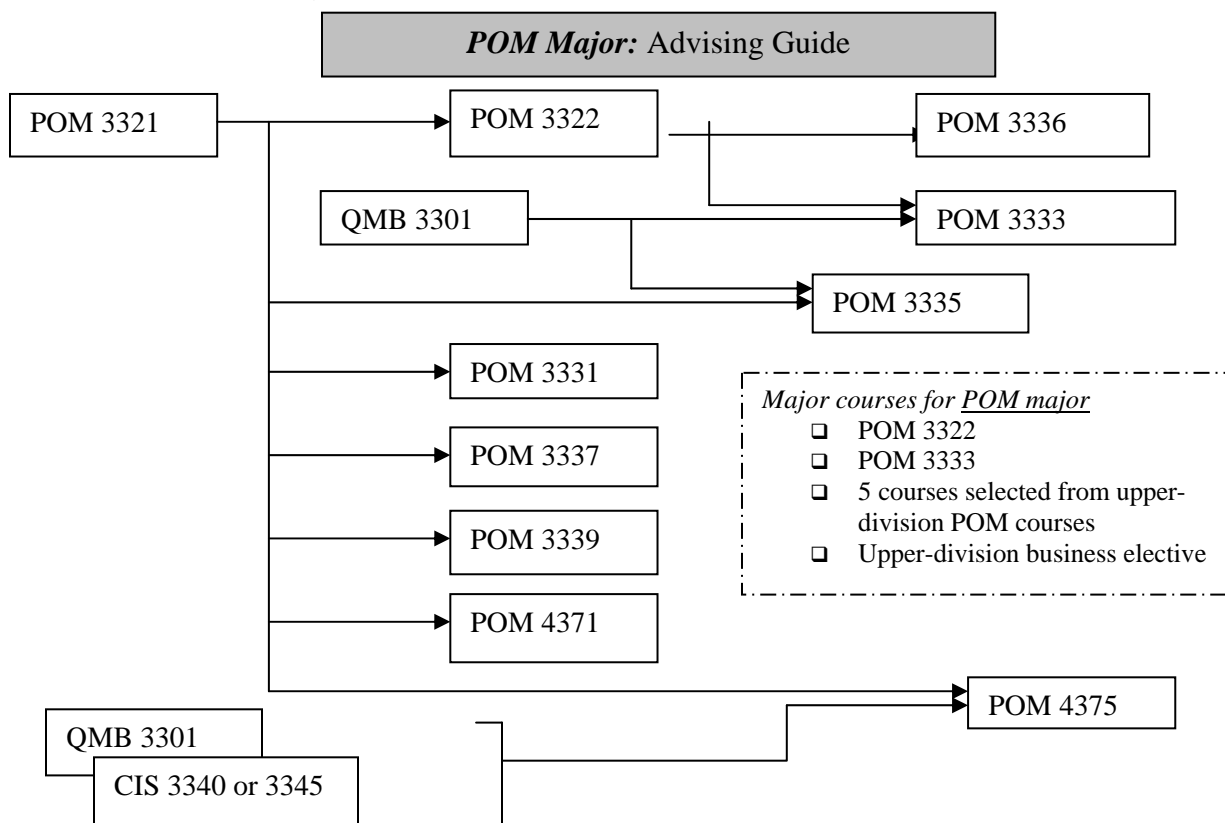
**CIS 4396: Internship (0-0-3)** Practical experience. Prerequisite: Upper-division standing

**CIS 4398: Independent Study (0-0-3)** Students and approved Instructors will choose a topic that they wish to investigate in depth. Upon agreement by the student and the instructor, a schedule of activities and deliverables will be determined. Students are required to publish and present their findings to an open forum. Prerequisite: Upper-division standing

**CIS 4399: Current Topics in Computer Information Systems (3-0)** The topics will be announced. May be repeated as topics change. Prerequisite: CIS 2335 or CIS 3235

## Undergraduate POM Courses

The IDS Department offers 13 undergraduate POM courses, one of which is a core business course (POM 3321). Two upper-division courses (POM 3322 and POM 3333) are required for the POM major, while the remaining 10 upper-division POM courses are electives.



THE SCM EMPHASIS IN POM	THE MM EMPHASIS IN POM
POM 3322: Advanced Production/Operations Management	POM 3322: Advanced Production/Operations Management
POM 3333: Production Planning and Control	POM 3333: Production Planning and Control
POM 3336: Inventory Management	POM 3335: Project Management
POM 3337: Business Logistics	POM 3336: Inventory Management
POM 4375: Operational Models for Supply Chain Management	POM 3339: Quality Planning and Control
2 courses selected from upper-division POM courses	2 courses selected from upper-division POM courses or IMS 4360
Upper-division business elective	Upper-division business elective

**POM 3321: Production/Operations Management (3-0)** Production management and its relationship to marketing, finance, and accounting functions are described. Forecasting demand, aggregate planning, inventory planning and control, and scheduling provide the basis for linking strategic plans to the production plan. Other topics discussed include: quality control, product and process design, facility location and layout, productivity improvement, and project management. Prerequisite: QMB 2301.

**POM 3322: Advanced Production/Operations Management (3-0)** The course discusses the design and implementation of Advanced Manufacturing Technologies (AMT). This includes Just-in-Time (JIT) systems, cellular and Flexible Manufacturing Systems (FMS), and Computer Integrated Manufacturing (CIM). It also explores the key role that manufacturing plays in product development efforts and cross-functional teams. Other topics such as manufacturing strategy, maintenance, and the design of work systems are presented as well. Case studies and group projects/presentations are used for instructional purposes. Prerequisite: POM 3321.

**POM 3331: Service Operations Management (3-0)** Methods of process analysis in service organizations, methods improvement procedures, and work measurement techniques are developed to provide the basis for analyses of processes, layouts, and job design in an organization. Prerequisite: POM 3321.

**POM 3333: Production Planning and Control (3-0)** The course covers material planning and control systems utilizing material requirements planning (MRP) techniques. Production planning, master production scheduling, MRP, capacity requirements planning, and shop floor control techniques are examined from both conceptual and practical standpoints. Prerequisites: POM 3322 and QMB 3301; POM 3322 may be taken concurrently with POM 3333.

**POM 3335: Project Management (3-0)** Various aspects of project management from conception and planning to project control and termination are discussed. Topics include: project scheduling, precedence diagramming, PERT, CPM, budgeting, and project management information systems. Organizational and conceptual issues such as project team development and management structure will be addressed. Prerequisites: POM 3321 and QMB 3301.

**POM 3336: Inventory Management (3-0)** A study of the concepts, principles, problems, and procedures involved in managing inventories of raw materials, work-in-process, finished goods, and supplies. Some emphasis will be placed on the formulation and application of models for the analysis and replenishment of inventories. Implications for inventory management of material requirements planning and just in time systems will also be discussed. Prerequisites: POM 3322; POM 3322 may be taken concurrently with POM 3336.

**POM 3337: Business Logistics (3-0)** Analysis of logistics concepts, activities, and decisions necessary to plan, implement, and control the private and public physical distribution of goods and services. The focus and emphasis of the course is on physical, human, informational, global, and organizational system components. The course includes such logistics topics as inventory, facility location, warehousing, traffic and transportation, materials handling, packaging, order processing, customer service, and global logistics. Prerequisite: POM 3321.

**POM 3339: Quality Planning and Control (3-0)** A study of the most effective methods for improving product and process quality in manufacturing and service operations. The course covers the following topics: statistical control charts, quality auditing, Japanese QC tools, process capability, loss functions, statistical tolerances, and experimental design. Statistical computer software will be used. Prerequisite: POM 3321.

**POM 3390: Internship in Production/Operations Management (0-0-3)** Practical experience in service operations/manufacturing enterprises is emphasized. The student will be required to write a paper on a relevant topic agreed upon with the supervising faculty. Prerequisites: POM 3321 and an advanced elective course in POM.

**POM 4371: Transportation and Warehousing Systems (3-0)** Role of transportation systems in economic activity; emphasis on modes of transportation analysis and planning, and the management of transportation systems in supply chains. Administration of warehouse and terminal functions in logistics systems, with analysis of customer service, forecasting, investment, design, and operation activities. Prerequisite: POM 3321.

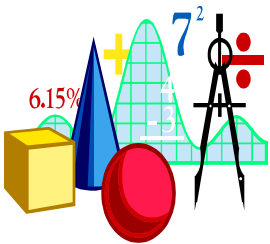
**POM 4375: Operational Models for Supply Chain Management (3-0)** An examination of some of the major operational concepts and issues relating to the flow of materials, goods, services, and information through a company's supply chain – the network of organizations that supply and transform materials and distribute final products to customers. The course seeks to provide an understanding of the importance of individual components (suppliers, manufacturers, distributors, and customers) in the operation of the supply chain. It will emphasize inventory-service level tradeoffs, risk pooling, and other operational concerns. Some of the more recent approaches designed for the effective and efficient operation of the supply chain will be discussed. Prerequisites: POM 3321, QMB 3301 and CIS 3340 or CIS 3345.

**POM 4398: Independent Study in Production/Operations Management (0-0-3)** The student studies a topic as a semester-long project. Prerequisites: POM 3321 and department approval.

**POM 4399: Current Topics in Production/Operations Management (3-0)** Topics to be announced. This course may be repeated for credit as topics are changed. Prerequisite: POM 3321.

**IMS 4360: International Manufacturing Management Concepts (2-3)** A comprehensive study of border manufacturing business issues. Includes analyses of the impact of culture on employee recruitment and selection, motivation, attitudes, training, and general labor relations and laws. Technology transfer, international accounting systems, the economics of foreign exchange, international capital budgeting, and the legal environments affecting offshore/border manufacturing are examined. Managerial control functions, materials management/logistics, location analysis, and information flow between manufacturing components are addressed. Case studies of real offshore/border manufacturing problems and group projects/presentations are utilized. Prerequisite: Department Approval. (This course is offered as part of the International Manufacturing Program which is administered by the Department of Mechanical and Industrial Engineering, College of Engineering.)

## Undergraduate Quantitative Methods for Business (QMB) Courses



The QMB courses offered by the department are intended to familiarize students with the basic quantitative methods and statistical techniques necessary in business decision making. Statistical procedures covered include descriptive statistics, parametric and non-parametric statistics, probability distributions, time series techniques, regression, and correlation analysis. Managerial decision making methods considered include mathematical programming, network analysis, risk analysis, and simulation.

The IDS Department offers two undergraduate QMB courses. One course (QMB2301) is a pre-core course, while the other (QMB 3301) is a business core course.

**QMB 2301: Fundamentals of Business Statistics (3-0)** Introduction to statistical techniques as applied to business data. Included are descriptive statistics, measures of central tendency and variation, probability distributions, sampling theory, hypothesis testing, and regression and correlation analysis. A major effort is devoted to computerized solution techniques to provide managerial information. Prerequisites: MATH 1320 or MATH 1409 or MATH 1410 or MATH 1508.

**QMB 3301: Quantitative Methods in Business (3-0)** Introduction to quantitative methods applied to business decision making. These methods include linear, integer, and goal programming, network analysis, and transportation linear programming. A major effort is devoted to computerized solution techniques to provide managerial information. Prerequisite: QMB 2301.

# What Graduate Courses Are Available?

## Graduate CIS Courses

**CIS 5311 Management Information Systems Theory and Practice (3-0)** A broad study of Management Information Systems, Decision Support Systems, and Expert Systems. MIS will be studied in-depth from the standpoint of structures, technology, and requirements. Problems and issues related to the design, implementation and management of MIS will be covered.

**CIS 5313 Strategic Information Systems (3-0)** This course is concerned with how general managers can apply information technology (IT) to increase strategic advantage and organizational effectiveness. The objective of the course is to develop students' ability to identify information systems that can increase organizational competitiveness and to recognize the major threats to these desired outcomes. Successful application of IT to business problems and opportunities will also be reviewed.

**CIS 5317 Information Resource Policy and Management (3-0)** A study of the information systems management function with particular emphasis on planning, organizing, and controlling information resources including MIS personnel. Coverage of various methodologies for assessing and evaluating the MIS function. Also covered are various strategies and procedures for managing MIS development. Prerequisite: CIS 5311.

**CIS 5330 Expert and Decision Systems (3-0)** Fundamental Decision Support System (DSS) and Expert System (ES) concepts, illustrating a number of software products and indicating possible directions for future development. The course covers the functions and components of DSS and ES, design and implementation issues, and organizational issues. Topics include the evolution of DSS/ES versus traditional information systems. Prerequisite: CIS 5311.

**CIS 5340: Electronic Commerce in Business (3-0)** The course will provide students with a well-defined set of business perspectives and good technical background in the electronic commerce (e-commerce) area. The course will also cover international, legal, ethical, and tax issues in the e-commerce area. The students will gain hands-on experience in designing, developing, deploying, and operating e-commerce dynamic Web sites using appropriate Web application construction software. Prerequisite: CIS 5311 or equivalent or instructor approval.

**CIS 5392: Directed Individual Study in CIS (0-0-3)** This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the Master's degree. Prerequisite: Department approval

**CIS 5394: Current Issues in CIS (3-0)** A course organized to investigate special topics and current issues in Computer Information Systems. May be repeated for credit when content varies. Prerequisite: Department approval

**CIS 5397: Professional Report in Computer Information Systems (3-0)** May be taken only once for credit. Continuous enrollment required while work on the professional report continues. Prerequisite: Department approval.

## Graduate POM Courses

**POM 5308: Concepts of Production Management (3-0)** The production/operations function is concerned with the planning and decision-making activities of managers directly responsible for the conversion of resources into products and services. This course is a study of the issues underlying the management of operations, and introduces students to a variety of tools and techniques used by operations managers exploring alternative means of implementing decisions. Prerequisites: QMB 2301 and MATH 2301.

**POM 5310: Manufacturing Strategy (3-0)** This course is primarily intended for manufacturing and operations managers and practitioners. The course covers such topics as: product profiling; choice and positioning of processes; manufacturing implications of corporate marketing decisions; dimensions of competitiveness quality; productivity, and raw products and processes; planning and implementing manufacturing strategies. Prerequisite: POM 5308 or instructor approval.

**POM 5311: Inventory and Materials Management (3-0)** This course addresses the issues and approaches associated with managing the inventory and flow of raw materials, work-in-process, finished goods, and supplies to ensure/enhance the organization's competitiveness and profitability. Topics will include outsourcing and make-or-buy decisions, international/global sourcing, and computer-based inventory/materials systems, as well as the formulation and application of quantitative models for inventory analysis and decision making. Prerequisites: POM 5308 and QMB 5311 (or equivalents).

**POM 5325: Global Operations and Supply Chain Management (3-0)** This course is designed to present and discuss concepts, issues, and problems critical to global operations with some emphasis on those that pertain to the operation and improvement of global supply chains. Coverage will include successful approaches in the areas of product design, quality management, and project management that have led to dramatic improvements in global business performance. Important recent developments and approaches for the effective operation of global supply chains will be identified and discussed. Prerequisites: POM 5308, QMB 5311, and CIS 5311 or equivalents.

**POM 5392: Directed Individual Study in Production/Operations Management (3-0)** This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. Prerequisite: Department approval.

**POM 5394: Current Issues in Production/Operations Management (3-0)** A course organized to investigate special topics and current issues in production/operations management. May be repeated for credit when topic varies. Prerequisite: POM 5308 or POM 3321.

**POM 5397: Professional Report in Production/Operations Management (3-0)** May be taken only once for credit. Continuous enrollment required while work on the professional report continues. Prerequisite: Department approval.

## Graduate QMB Courses

**QMB 5311: Quantitative Methods in Business (3-0)** Basic mathematical techniques employed in the solution of management problems, including probability theory and tests of hypotheses. May be counted only as Pre-MAcc or Pre-MBA courses in the graduate degree programs offered by the College of Business Administration. Prerequisite: Department approval.

**QMB 5397: Professional Report in Quantitative Methods in Business (3-0)** May be taken only once for credit. Continuous enrollment required while work on the professional report continues. Prerequisite: Department approval.

## Graduate MIT Courses

**MIT 5310: Fundamentals of Computers (3-0)** A review of fundamental programming concepts to topics in algorithm development, data structures, and intelligent combinations of data structures and algorithms for production-quality software development.

**MIT 5312: Systems Analysis and Design (3-0)** An overview of the Systems Development Life Cycle. Focuses on tools and techniques that an analyst can use to design information systems.

**MIT 5314: Database Applications (3-0)** Provides a technical background in designing, developing and maintaining databases and database management systems.

**MIT 5316: Web-based Computing (3-0)** A user-level data communications class for developing multimedia web-based systems in modern development environments.

**MIT 5318: Evaluation of the Impact of Info Technology (3-0)** A study of the impact of information technology on industrial management, productivity, personnel, privacy, competitive advantage, innovation, organizational design, organizational intelligence, individual learning, and communication.

**MIT 5322: Hardware Software Computing Environment (3-0)** A programmer-level class in the basic functions of an OS including memory, CPU, device and file management.

**MIT 5324: Object Oriented Analysis & Design (3-0)** Object-oriented techniques as they apply to software engineering and software architecture design and implementation.

**MIT 5326: End-User Computing (3-0)** This course focuses on the management of end-user computing resources through establishment of critical success factors and assessment criteria.

**MIT 5328: Applications Multiprocessing Computing (3-0)** This course will provide a general understanding of parallel and distributed computer systems and the ability to design and implement programs for such systems.

**MIT 5330: Data Communication and Networking (3-0)** A study of computer networks and data communications fundamentals with emphasis on network management, architecture models, the media, LAN (including ATM and wireless), MAN, WAN, the Internet, telecommunication systems, and network security. A term project on network design and practice sessions on network administration tasks are involved.

**MIT 5334: Management of Information Technology (3-0)** This course entails the management of the development, planning, and utilization of information systems within organizations. Among the topics discussed are the approval and decision process for the development of systems, information technology (IT) strategic planning, and IT outsourcing, IT project management, evaluation of strategic investments in IT.

**MIT 5398: Thesis/Project (3-0)** Students will apply knowledge developed in the MIT program courses to a project relevant to their areas of interest/expertise.

**MIT 5399: Thesis/Project (3-0)** Students will apply knowledge developed in the MIT program courses to a project relevant to their areas of interest/expertise.

# ***What Student Organizations Are Available?***

We are proud to sponsor a number of student and professional organizations in the area of Information Systems and Productions and Operations Management.



## **The Association of Information Technology Professionals**

**(AITP).** AITP is a national organization with professional and student chapters all over the United States. The AITP Student Chapter is devoted to helping students widen their career opportunities in the management of information systems. The AITP Professional Chapter brings together working Information Systems professionals with the intent of sharing information and meeting fellow professionals.

## **The Educational Society For Resource Management**

**(APICS).** Founded in 1957 APICS has expanded its focus to include a full range of programs and materials on individual and organizational education, standards of excellence, and integrated resource management. The student chapter invites managers from the area to discuss the latest managerial and technological approaches to resource management problems. Student chapter members attend meetings of the professional chapter, where in addition to presentations on concepts related to manufacturing and production, students can network with local managers and students from other chapters in the area. Other activities include plant tours and attendance to regional and national meetings sponsored by the professional chapter.



**The American Society of Quality (ASQ).** ASQ is a professional organization dedicated to the study and promotion of the field of quality. Headquartered in Milwaukee, WI, with chapters all over the country and abroad, ASQ also has a chapter in El Paso. Equally important, there is a student chapter here at the College of Business. Due to the nature of its activities, it is only natural for it to be under the IDS umbrella.

## ***Advisory Council Members (2002)***

**Mr. Brian Bowman**, *Corporate Placement Consultant, Principal Financial Group, De Moines, Iowa.*

**Mr. Peter Cooper**, *Chief Technology Officer, Consolidated Data Processing, El Paso, Texas.*

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**Ms. Phyllis Davis**, *Regional Director, Achieve Healthcare Information Systems, El Paso, Texas.*

**Mr. Chet Frame, CPIM**, *Director of Logistics, Tyco Health Care, Cd. Juárez, Chihuahua, Mexico.*

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**Mrs. Patricia Z. Holland-Branch**, *President & CEO, Facilities Connection, El Paso, Texas.*

**Mr. Lee Marsh, CPIM**, *Director, Juárez Operations, Woodhead de Mexico, Cd. Juárez, Chihuahua, Mexico.*

**Mr. Rudolph Montiel, PE**, *Director, Housing Authority, El Paso, Texas.*

**Mr. Ron Munden**, *E.P.V., El Paso, Texas.*

**Mr. George O'Connor**, *Regional Manager, EDS, ACG/DE Mexico, El Paso, Texas.*

**Mr. Jorge Olmos, CPIM**, *President, APICS El Paso/Juárez, and Director of Materials & Production Control,  
Lear M.T.O., Cd. Juárez, Chihuahua, Mexico.*

**Mr. J. Antonio Rico, PE**, *President, Esei, El Paso, Texas.*

**Mr. Fred Tovar, C.P.M., AP.P.**, *President, NAPM El Paso, and Director of Purchasing, Facilities Connection, El Paso, Texas.*

**Mrs. Barbara Walker**, *CISCO Systems Inc., El Paso, Texas.*

**Ms. Patricia Wickham, CPIM**, *President, Education Nonpareil, El Paso, Texas.*

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For more information

Copies of The University of Texas at El Paso catalogs for undergraduate and graduate programs are available from:

The University of Texas at El Paso  
Office of Registrar  
El Paso, Tx 79668

For additional information on undergraduate programs, please contact:

Information and Decision Sciences Department  
College of Business Administration, Ste. 205  
The University of Texas at El Paso  
500 W. University Avenue  
El Paso, TX 79968  
(915) 747-5496 Fax: (915) 747-5126

For additional information on graduate programs, please contact:

Yolanda Ruiz, Graduate Coordinator  
UTEP College of Business Administration  
(915) 747-7726