

INFORMATION SYSTEMS (INSS)

INSS 605 IT FOR BUSINESS TRANSFORMATION (3)

Examines the key roles that information systems and technologies play in the current business environment as well as the disruptive and innovative nature of information systems in promoting the fundamental transformation of industries, businesses, and society. Covers current major issues in the field of management of information systems, such as social computing, cybersecurity, big data and mobile technologies. Prerequisites: graduate standing, computer literacy.

INSS 641 LEADERSHIP OF THE IT FUNCTION (3)

Focuses on the role of the chief information officer. Today's CIO proactively assesses and balances the organization's technological and business environment in a partnership with the CEO. Topics include structure of the IT function, planning and measuring IT-business alignment, enterprise architecture, systems integration, applications portfolio, project planning and management, systems development and implementation, change management, insourcing, outsourcing, vendor management, operations and control management, IT human resource management and legal and ethical issues. Various facets of the CIO's role are explored through published case studies of real organizations. Background readings will be assigned as preparatory work for class-based case discussions. Prerequisite: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 650 NETWORKING AND TELECOMMUNICATIONS (3)

Provides a solid understanding of fundamentals as well as the state-of-the-art of networks and telecommunications used in business. Topics include communications layers and architectures, physical and data link layer, network and transport layer, local area networks (LANs), local internets, wireless LANs, backbone networks, virtual LANs, collapsed backbones, telephone service, voice-over IP, wide area networks, packet switching concepts, frame relay, ATM, VPN, Internet infrastructure (NAPs, MAEs and backbone), network management and infrastructure security. This course focuses on the TCP/IP architecture, but the OSI model is presented and discussed. It also covers Microsoft Windows networking TCP/IP concepts including architecture, fixed and dynamic IP addresses, subnet mask calculation, NetBIOS Resolution, IP routing and resolution, and DHCP and DNS services. Prerequisite: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 651 DATABASE MANAGEMENT SYSTEMS (3)

Examines the theories and concepts employed in database management systems (DBMS) and the efficiencies and economics of such systems. The course specifically addresses steps in the database cycle including normalization, database design, implementation, and developing queries using SQL. The functions of various types of DBMS are described, including their purpose, advantages, disadvantages and applications in business. Data administration, data requirements for ERP systems and data security issues are also covered. Prerequisite: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 671 SYSTEMS ANALYSIS (3)

Introduces students to key principles and techniques used to develop or modify information systems to support business undertakings. The emphasis is on the determination and modeling of the requirements of information systems and software. Topics include business process reengineering and the modeling of business processes, data modeling, data gathering and requirements specification, interface design and the development of systems prototypes, including electronic forms and reports. Students will gain experience with leading industry development tools such as those from Oracle and PeopleSoft. Prerequisite: computer literacy and word processing, spreadsheet and database competencies. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 701 INTERNET DEVELOPMENT IN BUSINESS (3)

Covers the issues involved with managing an organizations's web site. Issues include content management, scalability, security, reliability and usability. Topics will include tools and techniques for developing and managing large-scale web sites, such as Dreamweaver, Cold Fusion and SML. Prerequisites: Graduate Status and computer browser and network literacy. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 737 STRATEGIC MANAGEMENT OF INFORMATION TECHNOLOGY (3)

Information systems strategy and management from a top management perspective. Information technology is an integral part of most products and services of the post-industrial society of the 21st century and has changed the top management job. Topics include business models and organization forms in the information age, IT as a business enabler, IT and competitive strategy, information for management control, analysis and redesign of business structure and processes, knowledge management and information networks, inter-organizational networks, sourcing strategies, interfacing with the IT function, reliability and security, and ethical and policy issues. The course relies extensively on the case method and students will supplement their analyses with current information obtained from the Web or directly from the firms under study in the cases. Prerequisite: INSS 605. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 738 ADVANCED DATABASE SYSTEMS (3)

Examines current trends and major issues in databases, including data warehousing, data mining, data quality, data stewardship, Web-based systems and object-oriented, distributed and Enterprise-wide systems. This course will use software systems like Oracle and PeopleSoft to demonstrate some of these concepts. Prerequisite: INSS 651. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 739 SYSTEMS ARCHITECTURE (3)

Covers the process and techniques used in the design and implementation of information systems. The emphasis is on systems architecture and the integration of new systems into an existing infrastructure. Topics include types of system architecture, large-scale system design including middleware and software components, database design and integration. Prerequisite: INSS 671. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 740 INTRODUCTION TO SECURITY MANAGEMENT (3)

An overview of principles and issues in business and organizational security management. Student examine the challenges embodied in various aspects of security such as personnel, facility, and information. Principles of loss prevention and the protection of assets are examined. Students employ the use of situational analyses, case studies, and other research oriented approaches. Prerequisite: Graduate Standing. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 741 INFORMATION SECURITY MANAGEMENT (3)

Managerial view of information security. It provides brief hands on experience with technical aspects of security, but it concentrates on planning, risk management, development, specification, informal, cultural and legal aspects of information security management. Prerequisites: Graduate standing and INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 742 DATA MINING FOR STRATEGIC ADVANTAGE (3)

An overview of data mining and how these techniques can be used to predict behavior pattern. It emphasizes both theoretical and practical understanding related to pattern recognitions, trends, predictions, categorization and exploration used in data mining. Understanding of security, ethical and legal issues related to data mining are examined. Applications of data mining tools in business security, marketing and government are presented. Students employ the use of situational analyses, case studies, and other research oriented approaches. Prerequisites: Graduate standing. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 751 OPERATING SYSTEMS (3)

Provides a solid understanding of modern operating systems (OS) concepts and trends— distributed computing, parallel architecture and open systems. Topics include kernel, process and threads, concurrency and deadlock, scheduling, memory management, storage area network (SAN), network attached storage (NAT), disk performance, redundant array of independent disks (RAID), file systems, symmetric multiprocessing (SMP), clusters, middleware, distributed processing and client/server and OS security. Microsoft Windows and Linux basic concepts including overview at both the graphical user interface and command prompt levels, basic tools to manage applications and processes, devices, services, users, drives and partitions, virtual memory (swap files), networking and security. This is a project-oriented course, offering hands-on experience in both Windows and Linux. Prerequisite: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 752 WEB SERVER MANAGEMENT AND CGI PROGRAMMING (3)

Provides an Understanding of Web server installation, setup and management (particularly Apache and IIS); developing interactive, server-based, applications with the Web Common Gateway Interface (CGI), Active Server Pages (ASP) or PHP; and applications manipulating databases on the Web (particularly MySQL). Topics include HTML and forms review, Apache and IIS Web Server, CGI specifications, Practical Extraction and Report Language (Perl) scripts syntax, commands and CGI libraries, creating and porting CGI scripts, installation and use of MySQL database server, Perl DBI and MySQL, integrating Apache and MySQL, ASP and PHP concepts. Prerequisites: INSS 651 and INSS 701. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 753 INTERNET AND NETWORK SECURITY (3)

Familiarizes students with basic security threats on networks connected to the Internet, basic tools to provide user and system security and security resources available on the Internet. The main focus is on digital and infrastructure security. Topics include security framework overview, footprinting, scanning, enumeration, hacking framework, backdoor servers and Trojans, rootkits, Windows (98/NT, 2000/XP) and Linux vulnerabilities, dial-up, VPN and network devices vulnerabilities, firewalls, Intrusion Detection System (IDS), Denial of Service (DoS) and DDoS, buffer overflows, spyware, phishing, social engineering and protecting the Web end-user. This is a project-oriented course using a restricted-access UB lab to practice the use of hacking and security tools. Prerequisites: INSS 650 and INSS 751 or permission of instructor. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 761 DECISION SUPPORT SYSTEMS (3)

Covers human resource management issues including legal considerations, recruiting, selection, performance appraisal, development and health and safety. It will also cover strategic compensation issues including job evaluation, benefits administration and pay determination strategies. Additional emphasis will be placed on workforce diversity, international dimensions and ethical consideration. Prerequisite: Graduate standing. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 765 E-COMMERCE TECHNOLOGIES AND APPLICATIONS (3)

Provides a managerial and technical perspective on e-commerce applications. The emphasis is on the operational, tactical and strategic applications of e-commerce and the major technologies involved in their development. Covers the different types of e-commerce, the technologies and techniques involved and the major issues facing organizations conducting electronic commerce. Managerial topics include mobile commerce; business, consumer and government e-commerce uses; and legal and regulatory issues. Technical topics explored include network infrastructure, e-commerce security and data representation, transformation, and exchange technologies such as XML. Prerequisite: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 784 PROJECT MANAGEMENT (3)

Strong project management is key to a successful IT project. This course examines the principal elements in effective project management as well as tools and techniques for managing the process. Topics include stakeholder analysis, project design and organization, estimating and budgeting, scheduling, identifying and managing risk, project communications and project metrics and control. Prerequisites: INSS 640. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 789 INFORMATION SYSTEMS CAPSTONE PROJECT (3)

A field-study project capstone course. Student teams undertake an information systems project in the public or private sector with little supervision by faculty advisers. Project management by each team is an integral part of the course experience. A project proposal-including scope, milestones and deliverables-is developed at the beginning of the course. Progress reports and a final oral and written presentation complete the project management experience. Projects focus on one aspect of IS, such as systems analysis and design, database systems, telecommunications, electronic commerce, security or management. Students are evaluated by the team deliverables and by the individual contribution to the final project deliverables. Prerequisite: All required MIS core courses or permission of instructor. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 797 ADVANCED TOPICS IN INFORMATION SYSTEMS (3)

Exploration of advanced topics in information systems of interest to faculty and students. Prerequisites and topics are selected and printed in the schedule of classes. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.

INSS 799 INDIVIDUAL RESEARCH: INFORMATION SYSTEMS (1-3)

Prerequisite: approvals of instructor and chair of Department of Management Information Systems. University of Baltimore course provided as part of the joint Accounting and Business Advisory Program.