

INFORMATION SYSTEMS - BUS (INFS)

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INFS 247 Business Information Systems (3 Credit Hours)

Focuses on using information technology to support business processes. The purpose and composition of information systems, the utilization of technology and hands-on experience in developing microcomputer business applications with productivity tools (Microsoft Excel and Access).

Course equivalencies: INFS247/ISOM/MGSC247/ACINF247

Outcomes:

Understanding of using information technology to support business processes, and of developing business spreadsheet and database applications

INFS 247H Business Information Systems - Honors (3 Credit Hours)

Restricted to SBA honors students. Focuses on using information technology to support business processes. The purpose and composition of information systems, the utilization of technology and hands-on experience in developing microcomputer business applications with productivity tools (Microsoft Excel and Access).

Course equivalencies: INFS247/ISOM/MGSC247/ACINF247

Outcomes:

Understanding of using information technology to support business processes, and of developing business spreadsheet and database applications

INFS 336 Global Perspectives on Digital Business (3 Credit Hours)

Pre-requisites: Minimum grade of "C-" in INFS 247

This course will present topics related to managing information systems projects and digital business from a global perspective. Project management issues such as analyzing stakeholders, defining expectations, defining project deliverables, analyzing scope, collecting requirements, developing schedules, and mitigating risk, will be covered. Also, variety of digital business issues, such as digital business models, disruptive forces, and digital strategies will be covered from a global perspective.

Outcomes:

Understanding of concepts and steps related management of digital business project in a global environment; Understanding of general and global digital business concepts and issues

INFS 343 Business Analytics (3 Credit Hours)

Pre-requisites: Sophomore standing, C- or better in ISSCM 241, INFS 247 and MATH 131 or MATH 161

This course covers basic principles in data modelling, and turning big data into intelligent actionable insights. Through the use of real business case studies and lab sessions students will develop a comprehensive, innovative and practical approach to data analytics that enables them to solve diverse and complex business problems.

Course equivalencies: BSAD343/BSAD343H

Outcomes:

Explain core design concepts, appraise various technological solutions, determine proper analytics methods, integrate data visualization, and make a compelling presentation of a novel use case depicting current market trends

INFS 343H Business Analytics - Honors (3 Credit Hours)

Pre-requisites: C- or better in ISSCM 241H or ISSCM 241 and INFS 247H or ISSCM 247 and MATH 131 or MATH 161

This course covers basic principles in data modeling, and turning big data into intelligent actionable insights. Through the use of real business case studies and lab sessions students will develop a comprehensive, innovative and practical approach to data analytics that enables them to solve diverse and complex business problems.

Course equivalencies: BSAD343/BSAD343H

Outcomes:

Explain core design concepts, appraise various technological solutions, determine proper analytics methods, integrate data visualization, and make a compelling presentation of a novel use case depicting current market trends

INFS 346 Database & Data Warehousing Systems (3 Credit Hours)

Pre-requisites: Sophomore Standing, minimum grade of "C-" in INFS/ISSCM 247

Covers current concepts in database theory and use. The course teaches design, implementation, and utilization of relational database management systems by covering the processes, tools, and methodologies such as business requirement collection, ER modeling, relational modeling, normalization, SQL, and MS Access.

Course equivalencies: ISOM346 / MGSC346

Outcomes:

Students will be able to demonstrate understanding of how to effectively develop and use business database system

INFS 347 Systems Analysis & Design (3 Credit Hours)

Pre-requisites: Sophomore Standing, minimum grade of "C-" in INFS 247

This course studies methods for analyzing, developing and implementing business information systems. Stages of the systems development life cycle are explored in depth. Tools and techniques for structured and object-oriented analysis and design are discussed.

Outcomes:

Understanding of the development and implementation of business information systems

INFS 348 Advanced Data Analytics (3 Credit Hours)

Pre-requisites: Minimum grade of C- in INFS 346 or COMP 353

This class covers current concepts in computer analytics applications. The course emphasis is on how clients can leverage modern computing architectures and technology such as, Hadoop and R, to analyze patterns across large amounts of data. These relevant technologies (Hadoop and R) will be heavily utilized in the course.

Course equivalencies: ISOM348 / MGSC348

Outcomes:

The student will be able to demonstrate understanding of how to effectively use technologies such as Hadoop & R for solving business problems of varying levels of complexity

INFS 360 Data Visualization & Business Intelligence (3 Credit Hours)

Pre-requisites: Minimum grade of "C-" in INFS 346

The amount of data that our world generates is growing at a torrid pace. Sifting through & making sense of these humongous mountains of data is crucial to ensuring business growth, success and to making scientific discoveries & advancements. Data visualization plays an important role in this process.

Outcomes:

Students will be able to process & visualize large amounts of data in order to enable efficient & effective analysis using industry standard software

INFS 394 Programming in Python (3 Credit Hours)

Pre-requisites: Junior standing and a minimum grade of C- in INFS 346
This course focuses on how to effectively use the Python computer programming language to support decision making in business. We will particularly focus on using Python for manipulating and analyzing data. In addition to covering the concepts of programming, this course covers working with external data, debugging code and developing user interfaces.

Outcomes:

To learn how to develop computer programs in the Python programming language; To understand the process of debugging code to resolve errors; To read data from external files including from an external database using embedded SQL within Python code

INFS 395 Independent Study in Information Systems (1-3 Credit Hours)

Independent study is in-depth research or reading, initiated by the student and jointly developed with a faculty member in a specialized area of Information Systems not otherwise covered by departmental course offerings. Variable Credit. May count for Information Systems major or minor. Permission of Assistant Dean required.

INFS 397 VBA Programming with MS Office (3 Credit Hours)

Pre-requisites: Junior Standing, minimum grade of "C-" in INFS 346
This course focuses on how to effectively use Microsoft Office's built-in programming language, Visual Basic for Applications (VBA), to build models, primarily in Excel. We will cover issues that facilitate the construction of robust and readily understandable models in the VBA language. Starting with basic modeling functions, the course will progress through complex modeling skills. This course assumes that you are familiar with Basic Excel operations. By the end of this course, the student should be able to: build models using Excel built-in functions, build, customize and store Excel macros, design and build accurate, robust models with VBA, build custom VBA procedures, and create user-defined financial functions in VBA.

INFS 399 Special Topics in Information Systems (1-3 Credit Hours)

Special topics are scheduled classes offered on an ad hoc basis. Specific titles, prerequisites and content will vary.

INFS 443 Business Analytics (3 Credit Hours)

Business analytics is the practice of using methodically collected data to drive decisions about business and in business applications. The goal of the course is to introduce students to the current approaches, tools, and techniques involved in this practice. Because many topics and concepts in business analytics are best learned through hands-on work, time will be spent obtaining, processing, analyzing and visualizing data that pertain to different business cases. Students will use R, arguably the most popular analytical software used by data scientists. During this course, students will learn to use R, as well as gain and help improve business insight through data-driven analytics. Restricted to Graduate School of Business students.

Outcomes:

Explain the key factors differentiating business intelligence from business analytics; Frame a problem in a business analytics context to drive insightful decisions and gain the competitive edge

INFS 485 Business Requirement Analysis (3 Credit Hours)

This course focuses on information systems requirements and related skills. Students learn techniques for translating between business needs and requirements for analytics systems and related processes. Students will learn how to elicit, analyze, specify, prioritize, and validate requirements for analytics that enable an organization's business goals. The course reviews primary processes, e.g., transaction processing, that collects and processes the information the business uses as inputs into analytics.

Course equivalencies: ISOM485 / MGSC485

INFS 492 Database Systems (3 Credit Hours)

This course uses database systems as the focus for studying concepts of data modeling and data manipulation. Procedures for creating, managing, sorting, and processing data are discussed. Concepts of relational database methods are covered as well as the issues that arise in managing information in a database and using it to support business processes.

Course equivalencies: ISOM492 / MGSC492

Outcomes:

Understanding the development and use of business database systems

INFS 492E Business Intelligence/Data Warehousing (1.5 Credit Hours)

Enrollment is restricted to students in the Executive MBA Program. Explores concepts of data warehousing and business intelligence from a managerial perspective.

Course equivalencies: INFS600E/INFS492E

INFS 493 Strategic Use of Database Analytics (3 Credit Hours)

This course focuses on practical methods for in-database data preparation and manipulation to extract analytical insights out of a large or big data repository. The concept of big data, distributed computing frameworks, and massively parallel processing databases are also covered. Students will become proficient using open source databases, performing extensive advanced SQL programming, writing scripts and manipulating strings, numbers, data, etc. within a database

INFS 493E Strategic Use of Information Technology (1.5 Credit Hours)

Enrollment is restricted to students in the Executive MBA Program. Focuses on the use of information technology for competitive advantage, including the management of information as a corporate resource, and information systems planning and its relationship to corporate planning.

Course equivalencies: ISOM601E / INFS601E/INFS493E

INFS 494 Data Mining (3 Credit Hours)

Data Mining involves the search for patterns in large quantities of data. The fundamental techniques used in data mining include, but are not limited to, clustering, decision trees, neural networks, and association analysis.

Course equivalencies: X-CSIS494/INFS494

Outcomes:

The student will be able to build models using an industry-standard package and interpret the results

INFS 496 Systems Analysis and Design (3 Credit Hours)

Provides a core set of skills for planning, managing and executing systems analysis and design processes in e-business and Web-based environments. Topics typically include project initiation and planning, methods used in the determination of information requirements, prototyping, techniques used in systems design, testing and implementation strategies.

Course equivalencies: X-INFS496/CSIS496

Outcomes:

Understanding of the development and implementation of business information systems

INFS 499 Independent Study (3 Credit Hours)

Independent study is in-depth research or reading, initiated by the student and jointly developed with a faculty member, into a specialized area of information systems not otherwise covered by department course offerings.

INFS 590 Global Strategy and Data (3 Credit Hours)

This course introduces the student to economic and business practices of a foreign country using the analysis of data, and on-site experiences. We will focus on business strategies, impediments, and challenges in light of the culture, politics, history and institutions of a selected country. We will interact with a variety of local people such as small business owners, firm managers, economists, journalists, and students, in order to inform our understanding and analysis.

Course equivalencies: MGMT590/ISOM590

Outcomes:

Students will gain knowledge and analytical skills that can assist them in facing the challenges of conducting business in global locations

INFS 592 Data Visualization (3 Credit Hours)

Pre-requisites: INFS 492

The amount of data that our world generates is growing at a torrid pace. Sifting through & making sense of these humongous mountains of data is crucial to ensuring business growth, success and to making scientific discoveries & advancements. Data visualization plays an important role in this process.

Outcomes:

Students will be able to process & visualize large amounts of data in order to enable efficient & effective analysis using industry standard software

INFS 600E Business Intelligence & Data Warehousing (1.5 Credit Hours)

Explores concepts of data warehousing and business intelligence from a managerial perspective.

Course equivalencies: INFS600E/INFS492E

INFS 604E Business Data Analytics - Infrastructure (1.5 Credit Hours)

The course covers concepts related to data organizing and database modeling, and the managerial issues related to the design, implementation, and utilization of systems that support operational data use and provide infrastructure for business data analytics. Enrollment limited to EMBA Cohort.

Outcomes:

Students will learn how to gather, understand, manage, and act on information stored in databases, data warehouses, and Big Data repositories

INFS 605E Business Data Analytics - Application (1.5 Credit Hours)

The course covers the effective uses and applications of data analytics; including On-Line Analytic Processing/Business Intelligence, data mining techniques and their particular applications and data visualizations methods and tools. Enrollment limited to EMBA Cohort.

Outcomes:

Students will learn how business data analytics is applied to create competitive edge and business opportunities and how to understand and manage business data analytics applications projects

INFS 691 Principles of Analytic Programming (3 Credit Hours)

Pre-requisites: INFS 443

This course will focus on the R language and will build on the introduction from INFS 443.

Outcomes:

Students will learn to manipulate data, write functions and scripts for repeatable analysis, build models, and perform data analysis tasks

INFS 791 Programming for Business Decision Making (3 Credit Hours)

This course focuses on how to effectively use a computer programming language to support decision making in business. Examples include using Visual Basic for Applications (VBA) to create applications within Microsoft Excel or using Python for manipulating and analyzing data. In addition to covering the concepts of programming using the specified language, this course covers developing user interfaces, working with external data and debugging code. By the end of this course, the student will be able to build custom procedures and create user-defined functions in the programming language used.

INFS 795 Ethics and Data Analytics (3 Credit Hours)

The rapid advancement in technology necessitates an equally rapid advance in the ethics of data analytics. We will explore ethical questions in this field through the use of business case studies. We will also look at examples of ethical codes of conduct.

Outcomes:

Students will evaluate following ethical considerations: how data is collected, how it is interpreted, how it is applied, and with whom it is shared

INFS 796 Data Warehousing (3 Credit Hours)

Pre-requisites: INFS/ISOM 492

The components and design issues related to data warehouses and business intelligence techniques for extracting meaningful information from data warehouses are emphasized. Oracle tools will be used to demonstrate design, implementation, and utilization issues.

Course equivalencies: X-ISOM796/MGSC796/CSIS796

Outcomes:

Students will learn how data warehouses are used to help managers successfully gather, analyze, understand and act on information stored in data warehouses

INFS 797 Applications of Visualization (3 Credit Hours)

Students will explore human perception and cognition, the use of best design practices, and interacting/storytelling with data.

Outcomes:

This course will develop a vocabulary and framework for discussing, critiquing, assessing, and designing visual displays of quantitative data

INFS 798 Quality in Product Management (3 Credit Hours)

This 10-week intensive course aims at mastering the end-to-end process of discovering, designing, developing, delivering, and managing products in context to data, machine learning and artificial intelligence. The course concentrates on strategic thinking and tactical implementation of data driven products and provides skills needed to become a successful product manager.

INFS 799 Special Topics in Information Systems (3 Credit Hours)

Scheduled classes are offered on an ad hoc basis. Specific titles, prerequisites and content will vary.

Outcomes:

Students will be able to demonstrate understanding of specialized topics not otherwise covered by department regular course offerings