Business Systems and Analytics

Combining a strong business component with an in-depth study of state-of-the-art technology and analytics, the Business Systems and Analytics major is designed to prepare students for successful careers as business analysts and managers in any organizational environment. Typically embedded in the business units, analysts possess a thorough understanding of both business processes and the technologies that support them. Business analysts play a unique role, facilitating communication between the traditional IT area and the various business functions. The major is career-oriented as it provides the opportunity for internships and other professional experiences.

More information can be found online at http://www.stetson.edu/other/academics/programs/business-systems-and-analytics.php.

Learning Outcomes

Student learning outcomes describe what students know, understand and are able to do as a result of completing a degree program. The learning outcomes for this program are:

1. Apply problem-solving skills in the context of business systems and analytics through formula and calculation-based exercises
2. Demonstrate usage of tools and techniques relevant to business systems and analytics through application of industry leading software applications, as measured by scoring a 70% within the graded assessment
3. Describe ethical awareness in the context of business systems and analytics through simulated project scenario activities
4. Write effectively for a variety of audiences and for a variety of purposes in the context of business systems and analytics through article analysis and interpretation

Majors

Major in Business Systems and Analytics


Minors

Minor in Business Systems Analytics - 4 Units

The minor in Business Systems and Analytics is available to all Stetson undergraduate students who wish to combine their major field of study with an in-depth examination of computers and information systems in the traditional and electronic business environments. The program is designed to complement all majors across all disciplines. The objectives of the program are twofold: To expose students to current technologies which will enhance their effective use of computer hardware and software as they progress through the undergraduate curriculum and to provide students with a strong technical foundation which will enable them to be comfortable learning new technologies as they progress through their professional careers.

More information can be found online at http://www.stetson.edu/other/academics/programs/business-systems-and-analytics.php

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### Advising Course Plans

#### Business Systems and Analytics Major

### Courses

**BSAN 100. Information Technology I. 0.0 Units.**

**BSAN 101. Information Technology II. 0.5 Units.**

This is a tools course which covers how to best use application software (spreadsheets and database management systems) for data analysis and information management. Design is heavily stressed so that these analytical tools can be used to create spreadsheets and databases that easily grow and adapt for today's global, changing environments.

**BSAN 111. Introduction to Business Analytics. 1 Unit.**

This course provides an introduction to business analytics and builds quantitative skills using application software. By end of the course students will be able to apply broad statistical concepts and analyze data using Excel.

**BSAN 190. Special Topics in Business Systems and Analytics. 1 Unit.**

**BSAN 250. Management Information Systems. 1 Unit.**

An introduction to the Information Technology issues associated with the business enterprise. Designed to provide a broad perspective for understanding the nature of the use of information technology for competitive advantage and the management of information resources in traditional and E-Organizations. Emphasis of the course is on both managerial and technology points of view. Prerequisite: BSAN 111.

**BSAN 285. Independent Study. 0.5 or 1 Units.**

**BSAN 290. Special Topics in Business Systems and Analytics. 1 Unit.**

**BSAN 300. Applied Business Programming. 1 Unit.**

This course provides the student with an introduction to programming concepts and structures utilizing an object-oriented programming language. An in-depth coverage of object definitions, object properties, and object behavior is provided. Principles of programming style and good program design techniques are emphasized. Advanced projects cover business applications. Prerequisite: BSAN 111.

**BSAN 340. Internship. 1 Unit.**

Students are expected to complete an internship of varying time length with an external strategic alliance partner. Emphasis is on a relevant learning environment and acquisition of appropriate career skills at a suitable level of authority and responsibility. Prerequisite Permission of the Instructor.

**BSAN 351. Technology Globalization and Social Justice. 1 Unit.**

This course is intended to enable students to understand and to respond to the legal and ethical issues that arise from the use of information technology. Students will explore ethical and social issues arising from the computerization of industry and government, with emphasis on copyright, security, and privacy issues. The primary focus of the course will be the determination of the weight that these ethical and social issues should have in the design, implementation, and uses of present and anticipated applications of information technology. Prerequisite: senior standing.

**BSAN 351V. Technology Globalization and Social Justice. 1 Unit.**

This course is intended to enable students to understand and to respond to contemporary social issues that arise from the use of information technology. Students will explore cultural, economical, global, and ethical considerations arising from computerization. The primary focus of the course will be the determination of the weight that these social issues should have in the design, implementation, and uses of present and anticipated applications of information and communication technology on individuals, industry, government, and society. Junior Seminar.

**BSAN 360. Project Management. 1 Unit.**

This course focuses on the fundamental knowledge essential to managing, planning, scheduling and controlling projects in the information technology field with emphasis placed upon the understanding of the project environment, the phased approached to managing projects, critical path analysis, and the tools used to manage projects. The concepts and techniques covered are appropriate for all types of 254 projects, ranging from small to large, and from highly technological to administrative in nature. Prerequisite: BSAN 250.

**BSAN 370. Electronic Commerce. 1 Unit.**

This course provides an introduction to the concept and application of E-Business and E-Commerce from a business perspective. Topics include, infrastructure for E-Commerce, E-Commerce business models, and the use of E-Commerce in organizations for competitive advantage. Prerequisite: BSAN 250.

**BSAN 382. Web Development. 1 Unit.**

This is an applied course in the design and development of high quality web sites. Students will learn basic HTML, webpage development software, and graphic/photo editing software. An emphasis is placed on creating, managing and maintaining an entire web site. The goal of this course is to give the student the ability to integrate design principles and practical software skills in the web environment. Prerequisite: BSAN 250 or permission of instructor.
BSAN 383. Business Intelligence. 1 Unit.
This course introduces the concept of Business Intelligence (BI). Students will learn how BI is used by organizations to make better business decisions, use fewer resources, and improve the bottom line. This course provides an overview of business intelligence topics as well as hands-on experiences. Topics include business analytics, data visualization, data mining, data warehousing and business performance management. Prerequisite: BSAN 250.

BSAN 385. Independent Study. 0.5 or 1 Units.

BSAN 390. Special Topics in Business Systems and Analytics. 1 Unit.
This course is designed to acquaint students with current trends and issues in information technology by focusing on one of a number of information technology topics. Topics currently addressed in this course are Database Applications, Advanced Spreadsheet Analysis, or Open-Source Web Site Development. Prerequisite: BSAN 250.

BSAN 393. Communications Networks. 1 Unit.
This course provides an in-depth examination of data communication processes and structure. Central focus is on LAN, WAN, and Intranet technologies, as well as design and implementation of networking applications within the organization. Prerequisite: BSAN 250.

BSAN 397. Data and Information Management. 0.5 or 1 Units.
Students will complete an internship in business systems and analytics at a business, governmental or not-for-profit organization. Emphasis is on a relevant learning environment and acquisition of appropriate career skills at a suitable level of authority and responsibility. Internships require 200 hours (1-unit) or 100 hours (0.5 unit) within a semester time frame. A maximum of one unit of internship credit can be used as an elective towards the major. Prerequisites: Permission of Faculty Instructor and Department Chair; BSAN 250; 2.5 GPA; Business Systems and Analytics Major. Enrollment in an internship course requires students to attend an orientation prior to beginning work at their internship site. For more information regarding internship orientations, please contact Career & Professional Development at career@stetson.edu or 386-822-7315.

BSAN 398. Data and Information Technology. 1 Unit.
This course provides in-depth coverage of enterprise level database technology issues including data modeling, logical and physical table design, and implementation in a relational DBMS environment. Students gain hands-on experience in the use of enterprise-level development techniques such as CASE tools and advanced SQL. Prerequisite: BSAN 250.

BSAN 461. Business Process Management. 1 Unit.
This course provides an extensive investigation of a company's core business processes and the interactions within and between them. The primary focus of this course is the application of information technologies to transform organizations and improve their performance. Students will gain in-depth knowledge of enterprise systems, to include hands-on experience and the role they play in changing organizations. Prerequisite: BSAN 250.

BSAN 465. Predictive Analytics. 1 Unit.
This course provides an introduction to predictive analytics techniques used in business and social science research. Using enterprise-class analytic software, students will learn how to build predictive models using techniques such as logistic regression, discriminant analysis, cluster analysis, and decision trees. Prerequisite: STAT 301Q or equivalent.

BSAN 481. Social Media Analytics. 1 Unit.
This course introduces technologies and managerial issues related to social media analytics (SMA). Students will learn the importance of social media in influencing the reputation of contemporary businesses, examine text mining, sentiment analysis, and social network analysis, and apply the concepts, techniques, and tools to analyzing social media data. Real-world data such as online reviews, microblog postings, human interaction networks, and business networks will be studies. Hands-on training will be provided using a variety of software tools. Prerequisites: STAT 301Q (or equivalent) and junior/senior standing, or permission of instructor.

BSAN 485. Independent Study. 0.5 or 1 Units.

BSAN 488. Applications Development for E-Business. 1 Unit.
This course examines the design and implementation of web-based applications systems using an event-driven/object oriented development platform. Included is in-depth coverage of the technologies required for the implementation of E-Business web sites. Topics include E-Business web site design, Server-side development technologies, Cascading Style Sheets, Web Data Access, XML, and Ajax Web Development. A web application development project is used as a medium to allow students to practice their implementation skills as well as design side skills in the areas of database design and normalization, user interface design, program usability considerations, and the system development life cycle. Prerequisites: BSAN 250 and BSAN 300.

BSAN 490. Special Topics in Business Systems and Analytics. 1 Unit.

BSAN 493. Health Informatics. 1 Unit.
This course is designed to provide a health informatics overview in major sections of healthcare information systems, healthcare information systems administration, healthcare business intelligence and analytics, and healthcare future trends. Health informatics combines healthcare and business intelligence and analytics for decision making aimed at reducing costs and providing quality through use of information systems technology. Prerequisite: BSAN 250 or permission of instructor.

BSAN 494. Business Analysis. 1 Unit.
This course will provide instruction and educational content to students in each of the 53 Performance Competencies outlined in the IIBA Business Analysis Competency Model. Student will gain knowledge essential to planning, analysis, design, and implementation. Upon successful completion of the course, students will have the knowledge to perform effectively as an entry-level business analyst and be eligible for an Academic Certificate in Business Analysis. Prerequisite: BSAN 250.
BSAN 501. Current Topics in Information Technology. 2 or 3 Credits.
This course is designed to acquaint students with current trends and issues in information technology by focusing on one of a number of information technology topics. Topics currently addressed in this course are Ethics and Technology, Information Technology Project Management, System Dynamics Modeling, or Digital Inclusion. Graduate only.

BSAN 507. Managerial Decision Analysis. 3 Credits.
An analysis of the quantitative decision making process in management. This course explores the relationship between business intelligence and management decision making both in theory and in practical terms. Students learn how to apply a variety of quantitative tools to decision situations. Emphasis is placed on decision theory, forecasting, linear programming, queuing, simulation and other decision making tools. Graduate only.

BSAN 591. Technology for Business Transformation. 3 Credits.
Using case analysis, class discussion, and problem solving exercises, this course explores the critical factors affecting business success through the use of information technology. Business strategy issues, uses of business intelligence, e-business technologies, streamlining business operations, creating an environment that builds innovation and organizational transformation are discussed in detail. Graduate only.

BSAN 592. Corporate Information Strategy and Management. 3 Credits.
This course examines how information technology (IT) enables organizations to conduct business in radically different and more effective ways. The focus is on IT strategy implementation and how it is managed at the corporate level to enable strategic competitive advantage. Graduate only.

BSAN 593. Electronic Commerce. 3 Credits.
This course provides an in-depth examination of the concept and application of electronic commerce from a managerial perspective. The evolving application of E-Commerce as a means of obtaining competitive advantage and achieving organizational objectives is examined. Case analysis, class discussion, and problem solving exercises are used extensively. Topics include, infrastructure for E-Commerce, E-Commerce business models, and current issues surrounding the implementation of E-Commerce in organizations. Graduate only.

BSAN 594. Project Management. 3 Credits.
This course provides in-depth knowledge essential to managing projects in the information technology field. It considers strategic and operational issues, the significance of rapidly advancing technology, and personnel and organizational issues relating to technology introduction and use. This course focuses on the fundamental aspects of managing projects-planning, scheduling, and controlling. The concepts and techniques covered are appropriate for all types of projects, ranging from small to large, and from highly technological to administrative in nature. Graduate only.

BSAN 594C. Project Management. 10 Credits.