

Computer Science Information Technology

CSIT 301

Information Systems • 5.0 Credits

Formerly CSIT 301

The course is designed to help students understand the importance and elements of today's information technology (IT) systems. Topics include actual and contemporary examples to clearly illustrate how they can be applied to improve and strengthen IT organizations, IT security, and hands-on scenarios for class projects. \$35 virtual desktop fee **Prerequisite: Completion of CS 206 and CS 250, both with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 306

Intro to Big Data and Analysis • 5.0 Credits

Formerly CS 331, CSIT 306

The course provides a comprehensive view on computing architectures in data analytics and data mining. Topics include big data characteristics and algorithms, analyzing tools, data mining techniques, massive databases processing, implementation of machine learning algorithms, and analytics environments. Students learn to conceptualize an analytic environment that is suited to the challenges of today's analytics demands. \$35 virtual desktop fee **Prerequisite: Completion of CSIT 311 with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 311

Python for Data Processing • 5.0 Credits

Formerly CS 321, CSIT 311

This course is designed for students who have an object-oriented programming background. Students learn to use built-in data structures in Python computer language to perform complex data analysis. Students also learn to work with HTML, XML, and JSON data in Python to do basic data visualization. \$35 virtual desktop fee **Prerequisite: Completion of CS 250 and either CS 236 or CS 260, all with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 316

Cloud Computing HTML5 and PHP • 5.0 Credits

Formerly CSIT 316

This course in database-driven websites gives students an understanding of HTML5 with PHP (Hypertext Preprocessor). Students acquire web development techniques that use databases to create content with HTML form objects, database connections, and server side programming. Use of HTML5, MySQL, and PHP5 for programming turns simple static websites into dynamic, database-driven web applications. Course projects involve developing, debugging, PHP, and SQL. \$35 virtual desktop fee **Prerequisite: Completion of CS 206 and CS 250, both with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 401

Information Systems Analysis and Design • 5.0 Credits

Formerly CSIT 401

This course covers web development, service-oriented architecture, traditional, UML, and object-oriented approaches to information technology systems analysis and design. Real world case projects and technologies are provided throughout the course for hands-on exercises. Students apply the concepts learned to develop a conceptual, technical, and managerial foundation for systems analysis design and implementation as well as project management principles for systems development. \$35 virtual desktop fee **Prerequisite: Completion of PROJ 100 with a 2.0 or better and meets the criteria for acceptance**

into a BAS/BSN program and completion of a two-year degree or equivalent.

CSIT 411

Agile Methodology & Eportfolio Planning • 5.0 Credits

Formerly CSIT 411

This course represents the integration of previous coursework and practical experience with a focus on authentic demonstration of competencies outlined by the program. This course also covers Agile Methodology practices for teamwork using Scrum techniques. Students use an open source ePortfolio to collect information on performance-based artifacts combined with metacognitive reflection and a professional statement of purpose that reflects their ability to make globally, socially, and ethically responsible information technology and systems decisions that are aligned with the legal and organizational policy requirements. Students also reflect on a previous project and describe in writing how Scrum techniques could have been used to make their project more successful. \$35 virtual desktop fee **Prerequisite: Completion of PROJ 100 and CSIT 401, both with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 416

Data Visualization • 5.0 Credits

Formerly CSIT 416

This course introduces a data analytics tool used to prepare and analyze data for effective visualizations. Students learn theory and concepts of data analytics and how to display and share data in a meaningful way. Students also learn the principles of preparing, analyzing, and processing data to create desired data visualizations. \$35 virtual desktop fee **Prerequisite: Completion of CSIT 306 with a 0.7 or higher, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**

CSIT 421

IT Capstone • 5.0 Credits

Formerly CSIT 421

This course integrates all IT knowledge and skills learned in previous courses into a project. Emphasis is placed on secure information system design, process planning, procedure definition, business continuity, and systems security architecture. Students design and implement a comprehensive information system from the planning and design phase through execution. \$35 virtual desktop fee **Prerequisite: Completion of CSIT 411 with a 0.7 or higher, or concurrent enrollment, and meets the criteria for acceptance into a BAS/BSN program and completion of a two-year degree or equivalent.**