

Business Intelligence Certificate

2022-2023 Course Listing

Course Name	Credits	Course Description
Choose 3 out of 4 classes (12 credits)		
CIS570 Business Intelligence	3	<p>Organizations are awash with data that they collect and store as part of their routine operations. Business intelligence refers to the harnessing of these vast data stores to understand and solve problems, enhance decision-making, and discover new opportunities. CIS570 will focus on the concepts, processes, techniques, and technologies that managers can use to store, access, transform, analyze, mine, and visualize data for the purpose of deriving business value from it. Upon successful completion of the course, students should have:</p> <ul style="list-style-type: none"> • Acquired a sound knowledge of the field of business intelligence (BI) including its impacts, capabilities, and role in decision making, • Learned about BI technologies and the vendors that shape the industry, • Gained hands-on experience with some popular BI tools.
CIS575 Applied Data Mining and Analytics in Business Prerequisite: STAT 204 (Statistics for Business Students) or equivalent. Contact CIS Advisor about available tutorial.	3	<p>In CIS 575, students learn data mining concepts, methodologies, models, tools, and its applications to business for statistical analysis, prediction, classification, segmentation, and textual analysis. Upon successful completion of the course, students would know:</p> <ul style="list-style-type: none"> • The importance of data mining and its applications in business • The data mining process • Data mining methods/techniques for prediction, classification, segmentation, association, and textual analysis. • How to build, run and validate data mining models, and how to interpret model results • How to use data mining software applications/tools
CIS576 Business Data Visualization	3	<p>In CIS576, students learn both the ideas and methods of data visualization and also develop the skills necessary to solve visualization problems and evaluate visualizations. Student takeaways include:</p> <ul style="list-style-type: none"> • Understand the basic theories and principles behind effective data visualization • Develop a practical appreciation of why some visualizations work well, while others fail to communicate or even mislead • Create a wide range of visualizations • Refine visualizations for effective presentation
CIS655 Business Database Systems Prerequisite: CIS 605 or CIS 611 or programming experience	3	<p>This course provides a rigorous foundation in relational database management systems and their value to business enterprises. Students receive hands-on experience with data analysis, database design, database administration; data modeling and querying; data sublanguages (stored procedures) and encryption; distributed database systems.</p>