

# COMPUTER APPLICATIONS (CAP)

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## CAP2760C INTRO TO DATA ANALYTICS (3.00 Credits)

This course teaches how to use data to analyze all aspects of a company's operation and make appropriate business decisions. It focuses on Web-oriented data, and methods for analyzing data in order to create appropriate dashboards, reports and solutions. Practice will also be provided to thoroughly prepare students for the CIW Data Analyst certification exam.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Prerequisite: COP1700C (minimum grade: C)

## CAP2787C DATA WAREHOUSE AND DATA MINING FUNDAMENTALS (3.00 Credits)

This course covers the fundamentals of the process of capturing and manipulating data through data warehousing and data mining. This course will provide instruction on how to build a data warehouse. A data warehouse is the foundation for business intelligence. Students will explore different data warehousing architectures and multidimensional data modeling. In addition, this course will provide instruction as to how to utilize the data in a data warehouse. Students will learn to use general information and knowledge that will lead to informed decisions for businesses. This will include reports, dashboards and various methods for visualizing data.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Prerequisite: CAP2788C (minimum grade: C)

## CAP2788C DATA+ (3.00 Credits)

This course students with the the knowledge and skills required to transform business requirements in support of data-driven decisions by: mining data, manipulating data, applying basic statistica statistical methods, analyzing complex data while adhering to governance and quality standards throughout the entire data life cycle. Practice will also be provided to thoroughly prepare students for the Data + certification exam offered by CompTIA.

Total Contact Hrs: 48.00

Lecture Hrs: 32.00

Lab Hrs: 16.00

Fees: LABORATORY FEE \$36.00

## CAP3052C IMMERSIVE TECHNOLOGIES 1 (4.00 Credits)

This course is designed to prepare students for the global expansive and evolving media and entertainment industry. Upon successful completion of this course, the students should gain knowledge/experience and develop the skills necessary to manage all aspects of game design process through interactive application and video game creation.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Prerequisite: COP1000C (minimum grade: C)

## CAP3113C IMMERSIVE TECHNOLOGIES 2 (4.00 Credits)

This course is designed to provide students with the conceptual foundation, technical basis, and software development skills to design and program digital content in spatial computing. Students will explore the differences between spatial computing and AR/VR, develop key design techniques, and engage in development and testing.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Pre or Corequisite: CAP3052C

## 2 Computer Applications (CAP)

### CAP3321C DATA WRANGLING (3.00 Credits)

This course explores the concepts and methods of data wrangling, data retrieval, and the use of python in data analytics. Students will learn how to ensure the data is properly sourced, cleaned, formatted, pre-processed and ready to be used for data analysis.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Complete all the courses in the following option:

- Prerequisite: CAI3012C (minimum grade: C)

### CAP4114C IMMERSIVE TECHNOLOGIES 3 (4.00 Credits)

This course is designed for the student to apply his/her knowledge and skills applicable to Spatial Computing and Magic Leap hardware. The course is designed as project-based experiences focusing on Applications Development.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Pre or Corequisite: CAP3113C (minimum grade: C)

### CAP4612C ARTIFICIAL INTELLIGENCE FOR BUSINESS (4.00 Credits)

Students will learn the key elements of artificial intelligence and its applications in business. Concepts and base practices on how to structure business questions as artificial intelligence projects will be emphasized. Students will understand the different types of artificial intelligence and machine learning models, what kind of business problem solutions they can support, and what kind of opportunities they can uncover. Students will also learn to use critical thinking to identify situations where artificial intelligence should NOT be applied.

Total Contact Hrs: 64.00

Lecture Hrs: 32.00

Lab Hrs: 32.00

### CAP4755C DATAX (3.00 Credits)

This course provides students with the knowledge to implement data science operations and processes, apply mathematical and statistical methods appropriately and understand the importance of data processing and cleaning, statistical modeling, linear algebra, and calculus concepts, apply machine-learning models and understand deep-learning concepts, utilize appropriate analysis and modeling methods and make justified model recommendations and demonstrate understanding of industry trends and specialized data science applications.

Total Contact Hrs: 48.00

Lecture Hrs: 24.00

Lab Hrs: 24.00

Complete all the courses in the following option:

- Option 1 - Prerequisite: CAP2788C (minimum grade: C) and ISM3212C (minimum grade: C)

### CAP4950C IMMERSIVE TECHNOLOGIES 4 (3.00 Credits)

This capstone course will provide the opportunity for the student to demonstrate that he/she has learned material during the program and can apply it to a current issue. It should be taken during the student's last semester in the program. It provides the student with the opportunity to develop a plan to address one specific problem related to their specialization in detail.

Total Contact Hrs: 48.00

Lecture Hrs: 16.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$36.00

Complete all the courses in the following option:

- Prerequisite: CAP4114C (minimum grade: C)