Computer Information Systems

Computer Information Systems Degrees and Certificates

Computer Information Systems, Associate in Science

This program emphasizes the business applications of the computer. Graduates will have the theoretical, conceptual and practical background to use computers in business settings. Designed to facilitate transfer to Bachelor of Science programs, it provides a liberal arts or General Education base, which enables students to have career mobility and/or to continue study beyond the associate's degree.

The program responds to the increased demand from area business and industry for trained computer professionals. Supporting the program are the college's computer facilities and equipment, including personal computers and a variety of related hardware and current software.

For additional program information, please contact faculty advisor, Svetlana Marzelli, at (609) 343-5017 or smarzell@atlanticcape.edu or contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or hernande@atlanticcape.edu.

Upon completion of this program students will be able to:

- Utilize productivity software suitable for use in a professional environment;
- Design, implement, test, debug and document computer programs using appropriate development tools;
- Communicate effectively in both oral and written form;
- Perform system analysis and design including automated solutions to business systems;
- Manage time, tasks, and projects, and work effectively in teams;
- Identify computer system security risks;
- Apply mathematics to increase knowledge of business operations.

(*CISM-Fall* 2022)

General Education Courses

When a course is not specified, refer to the list of approved General Education courses.

Communication

Course #	Title	Credits
ENGL101	Composition I	3
ENGL102	Composition II	3

Mathematics-Science-Technology

Course #	Title	Credits
MATH155	Calculus I	4
MATH220	Statistical Methods	4
	General Education Science Course (4 credits)	4
CISM125	Introduction to Computers	3

Social Science

Course #	Title	Credits
	General Education Social Science Course (3 credits)	3

Humanities

Course #	Title	Credits
PHIL110	Introduction to Ethics	3
	General Education Humanities Course (3 credits)	3

Program Courses

Course #	Title	Credits
BUSN222	Principles of Management	3
CISM154	Computer Programming-Java	4
CISM160	Systems Analysis and Design	3
CISM222	Issues in Computer Security	3
CISM247	Management Information Systems	3
CISM254	Advanced Computer Programming-Java	4
MATH153	Discrete Mathematics	4
TCOM125	Technical Communication	3
	Choose one course from the following alphas: CISM or GIST (3 credits)	3
	Total Credits	**60**

Recommended Sequence of Courses

First Semester

Course #	Title	Credits
BUSN222	Principles of Management	3
CISM125	Introduction to Computers	3
ENGL101	Composition I	3
MATH155	Calculus I	4
	General Education Science Course (4 credits)	4

Second Semester

Course #	Title	Credits
CISM154	Computer Programming-Java	4
ENGL102	Composition II	3
	General Education Social Science Course (3 credits)	3
MATH220	Statistical Methods	4

Third Semester

Course #	Title	Credits
CISM254	Advanced Computer Programming-Java	4
MATH153	Discrete Mathematics	4
PHIL110	Introduction to Ethics	3
TCOM125	Technical Communication	3

Fourth Semester

Course #	Title	Credits
CISM160	Systems Analysis and Design	3
CISM222	Issues in Computer Security	3
CISM247	Management Information Systems	3
	General Education Humanities Course (3 credits)	3
	Choose one course from the following alphas: CISM or GIST (3 credits)	3

Bookkeeper Credentials, Professional Series

The Bookkeeper Credentials Professional Series is designed to provide evidence of expertise in Quickbooks Online and Microsoft Office skills that employers have identified as highest demand for employment and advancement of qualified Bookkeeper Administrative Professionals. Upon completion of the program, students will be able to perform advanced tasks in bookkeeping, word processing, spreadsheets, presentations, email and calendar scheduling, and database within applications of Quickbooks Online and MS Office: MS Word, MS Excel, MS PowerPoint, MS Outlook, and MS Access, earning industry credentials in these applications.

For additional information, please contact faculty advisor, Loretta Grisi-Dicker, at (609) 343-4820 or ldicker@atlanticcape.edu.

Upon completion of this program students will be able to:

- Earn Pearson Digital Badge Credentials in MS Word Introductory, MS Word Advanced, MS Excel Introductory, MS Excel Advanced, MS PowerPoint Introductory, MS PowerPoint Advanced, MS Access Introductory, MS Access Advanced;
- Earn the Industry Credential of Microsoft Office Specialist (MOS) **Associate** by passing three of the four Certification Exams in MS Word Associate, MS Excel Associate, MS PowerPoint Associate, and MS Outlook Associate;
- Earn the Industry Credential of Microsoft Office Specialist (MOS) **Expert** by passing two of the three Certification Exams MS Word Expert, MS Excel Expert, and MS Access Expert, plus having earned MOS Associate;
- Earn the Intuit Quickbooks Certifications: Intuit Quickbooks Certified ProAdvisor Online, Intuit Quickbooks Certified ProAdvisor Payroll.

(*ZBKP-Fall 2022)*

Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM162	Microsoft Excel	3
CISM166	QuickBooks Online	3
	Choose 3-6 credits from the following: CISM108-MS Word, CISM110-MS PowerPoint & MS Outlook, CISM164-MS Access	3-6
	Total Credits	**12-15**

Microsoft Office Credentials, Professional Series

The Microsoft Office Credentials Professional Series is designed to provide evidence of expertise in Microsoft Office skills that employers have identified as highest demand for employment and advancement of qualified administrative professionals. Upon completion of the program, students will be able to perform advanced tasks in word processing, spreadsheets, presentations, email and calendar scheduling, database, and keyboarding within applications of MS Office: MS Word, MS Excel, MS PowerPoint, MS Outlook, and MS Access, earning industry credentials in these MS Office applications.

For additional information, please contact faculty advisor, Loretta Grisi-Dicker, at (609) 343-4820 or ldicker@atlanticcape.edu.

Upon completion of this program students will be able to:

- Earn Pearson Digital Badge Credentials in MS Word Introductory, MS Word Advanced, MS Excel Introductory, MS Excel Advanced, MS PowerPoint Introductory, MS PowerPoint Advanced, MS Access Introductory, MS Access Advanced;
- Earn the Industry Credential of Microsoft Office Specialist (MOS) **Associate** by passing three of the four Certification Exams in MS Word Associate, MS Excel Associate, MS PowerPoint Associate, and MS Outlook Associate.
- Earn the Industry Credential of Microsoft Office Specialist (MOS) **Expert** by passing two of the three Certification Exams MS Word Expert, MS Excel Expert, and MS Access Expert, plus having earned MOS Associate.

(*ZMSC-Fall 2022)*

Courses

Note: OSTM101 may be waived based on proficiency (60 wpm typing test) by contacting the ISAS department chair.

Course #	Title	Credits
CISM125	Introduction to Computers	3
OSTM101	Keyboarding	1
	Choose 9-12 credits from the following: CISM108-MS Word (3 cr), CISM110-MS PowerPoint & MS Outlook (3 cr), CISM162-MS Excel (3 cr), CISM164-MS Access (3 cr)	9-12
	Total Credits	**12-16**

Oracle Database and GIS Specialist, Professional Series

The Oracle Database and GIS Specialist Series provides students with the knowledge needed for one of the fastest growing industries of our time. Students will learn to design and program using a live Oracle server with curriculum provided by the Oracle Corporation. Also, there will be an in-depth study of current GIS systems and their uses.

The Specialist series provides students with the opportunity to develop skills in the common areas of database design programming and GIS techniques and to update their technological skills and improve employability.

For additional information, please contact faculty advisor, Svetlana Marzelli, at (609) 343-5017 or smarzell@atlanticcape.edu.

Upon completion of this program students will be able to:

- Analyze geospatial data;
- Design and develop a distributed database;

- Organize geospatial data using a distributed database;
- Present geospatial data in the form of a map.

(*ZODG)*

Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
GIST101	Introduction to Geographic Information Systems	4
GIST150	Geospatial Data Collection	4
CISM167	Programming in Oracle SQL	3
CISM170	Database Design Using Oracle	3
	Total Credits	**17**

Oracle SQL Programming and Database Design Specialist, Professional Series

The Oracle SQL Programming and Database Design Specialist Series provides students with the knowledge needed for entry-level positions as database developer/programmer. The students will learn to design and program using a live Oracle server with curriculum provided by the Oracle Corporation.

The series provides students with the opportunity to develop skills in the common practices of database design and programming, improve employability and to update their technological skills. Upon completion, students are eligible to take the Level I Developer certification examination.

For additional information, please contact faculty advisor, Svetlana Marzelli, at (609) 343-5017 or smarzell@atlanticcape.edu.

Upon completion of this program students will be able to:

- Apply relational database concepts, as well as data modeling concepts;
- Design and build a database solution for a business or organization using the Structured Query Language (SQL);
- Manipulate data within a database using SQL;
- Retrieve information from a database using SQL.

(*ZSQL)*

Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM164	Microsoft Access	3
CISM167	Programming in Oracle SQL	3
CISM170	Database Design Using Oracle	3
	Choose: CISM135-Computer Programming-C++, CISM154-Computer Programming-Java, CISM174-Computer Programming-Visual Basic (4 credits)	4
	Total Credits	**16**

PC Specialist, Professional Series

This series is designed for the working person who needs user skills in personal computers. Students should complete this series if they own a business, work in an office, want to develop Internet proficiency or simply need to update their skills.

They will learn how to select hardware and software for a business, use a PC to enhance efficiency and productivity, and skills to supervise a small PC operation. Students will also learn the most common business software applications: word processing, spreadsheets and database. In addition, there is coursework on PC operating system software (Windows), file management, multimedia, and the Internet and the World Wide Web.

For additional information, please contact department chair, Dr. Otto Hernandez, at (609) 343-4978 or hernande@atlanticcape.edu.

Upon completion of this program students will be able to:

- Utilize the fundamentals of Microsoft Word, spreadsheets, and relational databases;
- Compare optimum hardware and software for a Windows based operation;
- Develop spreadsheets and databases for the accounting of assets;
- Develop a network of peers for additional insight of issues that may occur.

(*ZPCS)*

Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
CISM130	Using PC Operating Systems	4
TCOM127	Web Technologies	3
	Choose two: CISM162- Microsoft Excel, CISM164-Microsoft Access, OSTM262-Business Presentations Using Multimedia (6 credits)	6
	Total Credits	**16**

Project Management, Professional Series

This series will enable students to manage all major project management components such as project planning, initiation, execution, control and closing. The series will also provide students with introductory level knowledge on various types of business ownership, organization, management, marketing, industries, personnel, labor and legal considerations. Students will also learn to use Microsoft Project software.

For additional information, please contact faculty advisor, Bojan Zilovic at (609) 343-4959 or bzilovic@atlanticcape.edu or department chair, Dr. Otto Hernandez, at (609) 343-4978 or hernande@atlanticcape.edu.

Upon completion of this program students will be able to:

- Communicate the value of project management;
- Establish the structure for a successful project;
- Assemble, motivate and lead the project team;
- Ensure the project scope delivers the expected business value and desired outcome;
- Implement the proper mechanisms to prevent, minimize and respond to risks;
- Develop and use various mechanism to communicate project information;
- Ensure the project is completed per the agreed-upon project standards, budget and schedule.

(*ZPMT)*

Courses

Course #	Title	Credits
CISM125	Introduction to Computers	3
BUSN222	Principles of Management	3
CISM143	Introduction to Project Management	3
CISM244	Advanced Project Management	3
CISM247	Management Information Systems	3
	Total Credits	**15**

Smartphone Programmer, Professional Series

The Smartphone Programmer series provides students with an opportunity to gain knowledge and develop skills needed to design, build and test applications for mobile devices. Students will also learn how to effectively market their applications. After completing the series, students may apply the credits toward an associate in science degree.

For additional information, please contact faculty advisor, Svetlana Marzelli, at (609) 343-5017 or smarzell@atlanticcape.edu.

Upon completion of this program students will be able to:

- Develop basic computer application programs in Java or C++;
- Design, build and test basic mobile applications for the Android or the iPhone;
- Market mobile device applications through an online application store;

- Apply productivity software for functional and analytical purposes.

(*ZSPH)*

Courses

Course #	Title	Credits
ARTS116	Graphic Design	3
CISM125	Introduction to Computers	3
	Choose: CISM135-Computer Programming C++ or CISM154-Computer Programming-Java (4 credits)	4
	Choose: CISM159-Intermediate Programming – C++ or CISM254-Advanced Computer Programming – Java (4 credits)	4
	Choose: CISM270-iPhone Programming or CISM271-Android Programming (4 credits)	4
	Total Credits	**18**

Web Design, Professional Series

The Web Design Professional Series is a two-semester series designed for the working professional needing to become proficient in Web page design technologies. Students design and develop Websites that are graphically rich, well thought out, and professional. They use industry-standard design applications while exploring theoretical Web design concepts and generally-accepted development techniques for Web design.

For additional information, please contact faculty advisor, Bojan Zilovic, at (609) 343-4959 or bzilovic@atlanticcape.edu or department chair, Dr. Otto Hernandez, at (609) 343-4978 or hernande@atlanticcape.edu.

Upon completion of this program students will be able to:

- Design a website;
- Develop a website;
- Maintain a website;
- Manage a website.

(*ZWDP)*

Courses

Course #	Title	Credits
ARTS116	Graphic Design	3
CISM125	Introduction to Computers	3
TCOM127	Web Technologies	3
CISM163	Web Page Design	3
CISM165	Web Graphics and Animation	3
	Total Credits	**15**

Computer Information Systems Courses

CISM/CRIM240 : Computer Forensics

Introduces students to computer forensics and the various skills needed to collect and analyze digital evidence for various uses. This course focuses on the use of the most popular forensics tools and provides specific guidance on dealing with civil and criminal matters related to the law and technology. (May not be offered every semester. Check with advisor for scheduling info)
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0

Prerequisites
CISM125 or departmental exam

CISM/ENVL122 : Agricultural Technology

This course covers topics related to the use of technology in modern agriculture. Students will learn to make informed agricultural observations and decisions related to raising crops and the basics of scouting for problems and helping to solve problems in commercial farms. Students are required to attend at least three field-trips to local farms.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0

CISM102 : Computer Fundamentals - Windows

Designed for those with no prior knowledge of computer operations. Students will become oriented to a microcomputer, and will learn introductory skills such as navigating the desktop and folder hierarchy, Recycle Bin, simple word processing and drawing, and browsing the Internet. This course uses Windows.
Credits 1
Lecture Hours 1
Lab/Clinical/Field Study Hours 0

CISM106 : Internet Research

A broad-based overview of Internet research methods designed to meet the needs of users from a broad range of experience levels, this course provides essential information about Internet research, including topics on search toolbars, intelligent search agents and finding, evaluating and citing online sources. Emphasis will be given to scholarly databases available through the College's library and geospatial databases, which can be accessed through web-based geospatial viewers.
Credits 1
Lecture Hours 1
Lab/Clinical/Field Study Hours 0
Prerequisites
ESLN092 or placement into ENGL070

CISM108 : Microsoft Word

Provides both Microsoft Office Specialist (MOS) Word Associate and MOS Word Expert Certification word processing topics. Course includes managing documents, Inserting and formatting text, paragraphs, and sections, managing tables and lists, creating and managing references, inserting and formatting graphic elements, managing document collaboration, managing document options and settings, using advanced editing and formatting features, creating custom document elements, and using advanced Word features. Prepares the student to earn two digital badges for MS Word Introductory and MS Word Advanced, and to take two Microsoft industry certification exams: MOS Word Associate and MOS Word Expert. No programming experience required.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM110 : Microsoft PowerPoint & Microsoft Outlook

Provides Microsoft Office Specialist (MOS) PowerPoint Associate and MOS Outlook Associate Certification topics. Course includes managing presentations and slides, inserting and formatting text, shapes, images, tables, charts, smartArt, 3D models, and media, applying transitions and animations, managing Outlook settings and processes,

messages, schedules, contacts and tasks. Prepares the student to earn digital badges for MS PowerPoint Introductory and MS PowerPoint Advanced, and to take two Microsoft industry certification exams: MOS PowerPoint Associate and MOS Outlook Associate. No programming experience required.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM125 : Introduction to Computers

Designed for those with little or no knowledge of computer operations. Students will learn the basic components of a microcomputer, terminology of computing, and fundamentals of integrated software using a word processor, spreadsheet, and filer program. Other topics include computers in society, business and government as well as jobs and careers in computing. Meets General Education requirement for Technology.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
ENGL070 with a grade of C or better or placement into ENGL080 or ENGL101 (ESLN092 and ESLN100 may be taken concurrently with permission of instructor).

CISM130 : Using PC Operating Systems

Designed to give students a chance to obtain fundamental practical knowledge about personal computer operating systems. Students will be introduced to an assortment of the most popular operating systems available today. Experience using DOS, Windows and UNIX will be the focus of the course.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM132 : Problem Solving Using Technology

This course is designed to prepare students for living, working, and studying in a world where technological advances force societal change. Topics include the hardware and software used in performing common computing tasks, appropriate and responsible use of existing and emerging technology tools for decision making, computer aided communication and collaboration, productivity applications, the relationship between data and information, the information processing cycle, data mining, and problem solving. Students will learn to use a variety of software applications to access, organize, and present information. Learning activities include word processing projects, examining data using spreadsheets, organizing data and information using databases, and coding. Meets General Education requirement for Technology.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0

CISM135 : Computer Programming-C++

This course covers programming concepts and methodologies using the C++ programming language. It emphasizes structured programming techniques in procedural programs. The student will learn data types, expressions, control structures, functions, arrays and file management.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM142 : Help Desk Support

Provides an overview of the topics relevant to working at a help desk including customer service skills. Topics discussed include help desk concepts, roles and responsibilities, help desk operations, help desk processes and procedures, tools and technologies, performance measures, customer satisfaction, listening and communication skills, solving and preventing problems and training.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM143 : Introduction to Project Management

Provides students with concepts and techniques for managing projects in a wide range of industries and organizations. The course takes a decision-making, business-oriented approach to the management of projects, which is reinforced with current examples of project management in action. The course also addresses project management within the context of a variety of successful organizations, whether publicly held, private, or not-for-profit. Students are introduced to Microsoft Project, an industry standard project management computer application.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM146 : Computer Networking

This course is designed to prepare students for a career in supporting computer networks. This course provides a strong foundation in networking software, hardware, support and network design.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0

CISM148 : Problem Solving Using Scripting

Presents students with concepts and techniques for solving problems using a scripting language, a query language, and basic hypertext markup language. Covers data types, control structures, input/output, graphical user interface, and data access and exploration. Introduces students to application development using an integrated development environment.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM149 : Computer Hardware

This course is designed so students learn the concepts and techniques used by certified information technology professionals for supporting and troubleshooting computer hardware. Topics include but are not limited to working inside a computer, supporting processors and memory, supporting hard drives, installing and supporting storage devices, setting up a network, and satisfying customer needs.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 and CISM130 (both may be taken concurrently)

CISM154 : Computer Programming-Java

Introduces programming concepts and methodologies using the Java programming language. Emphasizes object-oriented structured programming techniques. Covers control structures, file input and output, arrays, strings, and ArrayList. Assignments provide hands-on experience writing, testing, and debugging programs using an integrated development environment. No prior programming experience is required.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM159 : Intermediate Programming-C++

This course covers procedural programming in C++ including functions, vectors, pointers, strings, and advanced file operations. The course also addresses data abstraction with classes, objects and operator overloading which are the root concepts of object-oriented programming. Inheritance, polymorphism, aggregation and object-oriented design are also discussed.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM135: Computer Programming-C++
Semester Offered
Spring

CISM160 : Systems Analysis and Design

Investigation of information systems with respect to their existence and identification and development of needed informational improvements within an organization. Recommended methods and procedures considering computer involvement are reviewed, designed and implemented using the case-study approach.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
one of the following: CISM135, CISM154 or CISM174

CISM162 : Microsoft Excel

Provides both Microsoft Office Specialist (MOS) Excel Associate and MOS Excel Expert Certification spreadsheet topics. Course includes creating and managing worksheets and workbooks, creating tables, charts, PivotTables and PivotCharts, applying custom formatting, and performing operations with formulas and advanced formulas. Prepares the student to take two Microsoft industry certification exams: MOS Excel Associate and MOS Excel Expert. No programming experience required.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM163 : Web Page Design

Covers concepts and techniques related to designing and developing professional Web sites. The course enables students to design and develop a professional Web site using industry-standard tools.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites

TCOM127 or permission of instructor.

CISM164 : Microsoft Access

Advanced concepts in relational database development. Emphasis on the structured techniques for program design, development, testing and documentation to build business applications. Includes the creation of data entry screens for interactive environments with emphasis on report generation for business applications.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers
Semester Offered
Fall

CISM165 : Web Graphics and Animation

Introduces students to the techniques, tools and concepts necessary to design and develop graphics and animation for the Internet. Students will work with professional graphic and animation tools to develop a graphics and animation portfolio.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
ARTS135 or CISM125 or permission of instructor. (CISM165 is not a substitute for a 100-level ARTS course for Studio Art majors.)

CISM166 : QuickBooks Online

Provides Intuit quickbooks Certified ProAdvisor Online, Intuit quickbooks Certified ProAdvisor Advanced Online, and Intuit quickbooks Certified ProAdvisor Payroll topics. Course includes Set up a new company, Add Sales and Customers, Add Suppliers and Expenses, Company Activities, Banking, Payroll & Employees, Inventory, and QuickBooks Reports. Prepares the student to earn three Intuit industry certifications: Intuit quickbooks Certified ProAdvisor Online, Intuit quickbooks Certified ProAdvisor Advanced Online, and Intuit quickbooks Certified ProAdvisor Payroll.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM167 : Programming in Oracle SQL

Provides an introduction to the Structured Query Language using Oracle databases and techniques. Course covers design and programming using diagrammatic techniques and the SQL language. Programming will be done using SQL and students will learn how it can be used to maintain, retrieve, manipulate and design new and used databases. This course will help prepare the student to take an Oracle industry certification exam.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM170 : Database Design Using Oracle

An introductory course in database management and database development. Course includes the role of databases and their development in organizations, data modeling, and data design using ERD and Oracle SQL, Client/Server environment, Internet Database environment, data warehousing, database administration, Object-Oriented data modeling and Object-Oriented database development.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM174 : Computer Programming-Visual Basic

This course uses Visual Basic, an object-oriented/event-driven language, to teach fundamental programming concepts. Students with no previous programming experience learn how to plan and create their own interactive Windows applications. Graphic User Interface design skills are emphasized. Students will be able to develop business-related applications.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 (may be taken concurrently)

CISM176 : Systems Security Methods

A study of the fundamental techniques for computer security and its implementation. Students will learn to assess and mitigate risk, evaluate and select appropriate technologies, and apply proper security safeguards. (Course is designed to prepare students for the CompTIA Security+ industry certification exam)
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM180 : Radio Broadcasting

Designed to introduce the student to all aspects of radio station operations. Both technical and conceptual strategies and techniques will be covered. Emphasis will be on production of Internet-based radio programming. Course topics include, but are not limited to, basic audio production, streaming media and the impacts of Internet media on society.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM182 : Linux

This course provides essential knowledge about the open-source operating system Linux and prepares students for Linux+ Certification. Students will learn to install, configure, manage, network, support, and operate Linux based environments.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM185 : Special Topics in Information Technology

Introduces students to a specific topic in information technology. Topics may include new and emerging technologies and/or technology's impact on our world. See the current course schedule for the course topic and prerequisite information.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0

CISM190 : Social Media for Business

This course will explore emerging social media technologies and study their application in business. Students will examine these technologies from a theoretical perspective by reading scholarly research and writing, but will also learn how to use and author content. The course covers technologies including social and business networking, blogs, microblogs, collaboration tools, podcasts, forums, viral video, social bookmarking and other emerging web technologies. Additionally, students will learn how to use these technologies to monitor and engage online communities, identify influencers, establish thought leadership and create a sustainable social media business model.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM215 : Ethical Hacking

This course teaches students about network attack strategies and common countermeasures. It prepares students to use various penetration testing tools to analyze computer networks for vulnerabilities. Knowledge of these vulnerabilities together with initiating an attack, will help students understand how to counter weaknesses and improve network security. The course covers the objectives of the TestOut Ethical Hacker Pro certification examination.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM176: Systems Security Methods

CISM222 : Issues in Computer Security

Outlines the basic tasks necessary for safeguarding a computer system. Topics covered include personal computer security, organizational computer security, internet security and network security. Course explains how to prepare for attacks and what to do when attacks occur.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM154 or CISM174

CISM230 : Cloud Computing

This course exposes students to the variety, complexity, and capabilities of modern cloud platforms and architectures. The topics covered in the course include cloud infrastructure components, essential characteristics of cloud platforms, security implication of cloud resources, typical instruction sets and architectures of embedded systems. Coursework will include student presentations and a term project that will provide exposure to scientific research in cloud computing. The course prepares the student for the Microsoft Azure AZ900 certification.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers

CISM244 : Advanced Project Management

This course will help students plan and manage a wide range of projects, from meeting crucial deadlines and budgets to selecting the right resources. The focus of this course is on the software tools necessary for successful project management. The course will provide students with an understanding of Microsoft Project and allow them to render the skills necessary to utilize the program. Topics include basic and task specific functions, utilization of PERT/Gant, resource management and calendar work schedule manipulation. In addition, students will also be able to customize Microsoft Project views and menus.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM125 and CISM143

CISM247 : Management Information Systems

Introduces the concept of information as a resource in business and the integration and management of various information resources in a business organization, including management information systems, decision support systems, telecommunications, data management and office automation. Analysis of the manager's role in information system design and the management of information system departments.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
BUSN222 and CISM125

CISM254 : Advanced Computer Programming-Java

Addresses the advanced topics of object orientation used in software engineering, the theory behind data abstraction, inheritance, and GUI design. Additional topics will include sorting and searching algorithms, dynamic data structures and Java database connectivity.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM154: Computer Programming-Java

CISM258 : Cyber Defense

This course is designed to teach students how to monitor and respond to cyber threats both proactively and analytically, using hands-on labs with challenging high-stakes scenarios they'll face on the job. It covers the most up-to-date tools, like Burp Suite, Wireshark, Metaspoit, Ettercap, and Nmap, to learn job skills used by Incident Responders, Threat Intelligence Analysts, and Cyber Security Analysts in and out of Security Operations Centers (SOC). The course is designed to align with CompTIA Cyber Security Analyst certification CySA+.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM176: Systems Security Methods
CISM182: Linux

CISM259 : Advanced Programming-C++

Covers the advanced topics of object-orientation used in software engineering, and the theory behind polymorphism, inheritance, data composition, and exception handling using classes. In addition, data structures and the algorithms associated with them will be studied. These topics will include recursion, stacks, queues, binary trees and sorting.
Credits 4
Lecture Hours 4

Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM159: Intermediate Programming-C++

CISM270 : iPhone Programming

This course is an introduction to writing object-oriented applications for the iPhone, iPod touch and iPad using the iOS SDK, Swift programming language and Cocoa Touch frameworks. Topics will include iPhone development tools and fundamentals, user interface design, how to submit applications to the App Store and applications business issues. An iPhone, iPod touch or iPad are not required for coursework completion. Students will be able to build and test applications on Intel-based Mac computers using a free compiler and simulator.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM135 or CISM154 or permission of instructor.
Semester Offered
Spring

CISM271 : Android Programming

This course is an introduction to developing native applications for Android mobile devices. Students will develop applications in Java using Google's Android Development Toolkit. Topics will include Android development tools, user interface design, how to submit applications to the Android Market and application business issues. An Android mobile device (smartphone or tablet) is not required for coursework completion. Students will be able to build and test applications on a Windows computer using freely available tools such as Eclipse and the Android emulator.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisites
CISM135 or CISM154 or permission of instructor.
Semester Offered
Fall

CISM280 : Capstone Portfolio

Designed to grant students the opportunity to develop a product portfolio documenting aspects of their academic career. Students will design and develop an electronic portfolio, including examples of their best work from program courses, and will be required to complete a capstone project. The project objectives will be based on the student's major course of study.
Credits 1
Lecture Hours 1
Lab/Clinical/Field Study Hours 0
Prerequisites
Permission of instructor.

CISM290 : Instructional Technology for Teachers

Designed to introduce pre-service teachers to concepts and techniques for integrating a wide variety of technologies into their curriculum. This course provides hands-on experiences designed to illustrate the possibilities and potentials of technology for education. The course focuses on how teachers can apply technology effectively to promote student learning, higher order thinking skills and critical thinking skills. Included in the course is the development of a portfolio containing lesson plans and examples of completed projects.
Credits 3
Lecture Hours 3
Lab/Clinical/Field Study Hours 0
Prerequisites
EDUC101 and EDUC213 or EDUC/PSYC110

CISM295 : Information Technology Cooperative Education

The cooperative education course is designed to provide students with on-the-job training and practice in career settings through a faculty approved work site. The purpose of the course is to apply the principles and theories taught in the educational environment with real-life projects in a professional work setting. Students will secure a position at an approved site prior to the start of the course and complete required hours and assignments by the end of the course. Each student will secure co-op that is consistent with his or her professional goals.
Credits 3
Lecture Hours 0
Lab/Clinical/Field Study Hours 9
Prerequisites
Permission of Instructor

CRIM/CISM262 : Mobile Forensics Investigations

This course will familiarize students with mobile devices and technology used by carriers, and analyze the legal implications of using such devices as evidence in a court of law. Students will identify data that can be retrieved from mobile devices such as cellular phones, smartphones and GPS devices. Recovered and analyzed data will include address books, call logs, text messages, video and audio files and internet history. Students will correlate data with records from network service providers. Students will apply industry-recognized best practices to evidence collection and analysis with using current technology.
Credits 4
Lecture Hours 4
Lab/Clinical/Field Study Hours 0
Prerequisite Courses
CISM125: Introduction to Computers