
Graduate Certificate in Computer Information Systems
Department of Computer Information Systems
Walker College of Business

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<http://cis.appstate.edu/>
http://www.business.appstate.edu/grad/is_cert.asp

The Department of Computer Information Systems offers a graduate certificate in Computer Information Systems (310A/52.1201) and course work at the graduate level in support of the Walker College of Business degree programs.

Courses in the following disciplines are offered through the Department of Computer Information Systems:

CIS: computer information systems courses

Prerequisite to enrollment in a graduate course offered by the Department of Computer Information Systems is admission to a graduate program of study, admission to a graduate certificate program, or permission of the instructor and the departmental chair. In addition, enrollment in MBA courses requires permission of the MBA Program Director. A non-degree student must obtain permission from the Graduate School to enroll in 5000-level courses.

The Graduate Certificate in Information Systems is intended for two particular audiences: MBA students seeking a concentration in Information Systems and college graduates returning to school to re-tool for a new career path in Information Systems. The certificate is not intended for students who are pursuing or have completed any degree with a significant concentration in information technology, such as information systems or computer science.

Students may be advised to take selected undergraduate information systems coursework prior to admission as preparation for graduate-level study in the certificate program.

PROGRAM OF STUDY FOR THE GRADUATE CERTIFICATE IN COMPUTER INFORMATION SYSTEMS (310A/52.1201)

Admission Requirements: Baccalaureate degree from an accredited college or university; complete application to the Cratis Williams Graduate School (<http://www.graduate.appstate.edu>), including resume, official GMAT scores, and official transcripts for the baccalaureate degree.

Hours: 18 semester hours

Location: On campus

Basic Criteria for Consideration: GMAT + (200 X GPA in last 60 hours) = 1050

Program of Study:

CIS	5120	Systems Development Concepts.....	3
CIS	5130	Applications Development with Visual Basic	3
CIS	5350	Advanced Database Concepts	3
CIS	5580	Data Communication & Networking	3
Select 2 courses from the following			6
CIS/MBA	5210	Information Technology for Business (3 s.h.)	
CIS	5250	Issues In E-Business (3 s.h.)	
CIS	5280	Systems Management (3 s.h.)	
CIS	5300	Managing Information Technology (3 s.h.)	
CIS	5500	Independent Study (3 s.h.)	
CIS	5530-5549	Selected Topics (3 s.h.)	
CIS	5585	Advanced Data Communication and Networking (3 s.h.)	
CIS	5610	Issues in Global/International Information Technology (3 s.h.)	
CIS	5850	Advanced Systems Design (3 s.h.)	

TOTAL HOURS FOR THE CERTIFICATE..... 18

GRADUATE COURSES IN COMPUTER INFORMATION SYSTEMS (CIS)

CIS 5010. Microcomputer Concepts and Applications/(3).On Demand. This course surveys microcomputer hardware and software with emphasis on the relationship of microcomputers in an organizational role. Methodologies of evaluating hardware and software to fulfill organizational needs will be examined. Practicums utilizing available software packages and hardware will be developed. Prerequisite: admission to a COB Graduate Program or permission of the departmental chair.

CIS 5100. Management Information System/(3).On Demand. A study of the methods and procedures of computerized information systems and how they should be used to create viable management information systems. Includes administrative uses and limitations of information systems in a company. Measures of information system effectiveness, documentation procedures, data security, legal implications and personnel requirements as well as system configurations and software are included. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5120. Systems Development Methods/(3).On Demand. This course examines the concepts, issues and methodologies used to develop systems that will meet the information needs of contemporary organizations operating in the information age. A CASE tool is used to familiarize students with computer supported design techniques used to develop and implement the complex information systems required by successful organizations. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5130. Applications Development Using Visual BASIC/(3).F;S. In this course, the student will learn to develop business applications in the event-driven GUI- oriented Windows environment using Visual BASIC. Emphasis is placed on data handling, interface design, and proper development and programming techniques. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5250. Issues in E-Business/(3).On Demand. This course examines the concepts and issues associated with using the technologies and processes of electronic commerce to facilitate the operational success of a contemporary organization. Through extensive use of the Internet, students will gain direct experience with the promise, problems and potential of using information technology and electronic commerce in individual and organizational endeavors. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5280. Systems Management/(3).On Demand. Introduction to General Systems Theory and its application to the analysis, design, and operation of information systems. Emphasis will be placed on the design and management of information technology, cybernetics, real-time systems, models and simulations, and man-machine systems. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5300. Managing Information Technology/(3).On Demand. A seminar course providing a broad overview of the information systems management function. Emphasis on information systems management, with particular attention on planning, organizing, and controlling user services and managing the computer information systems development process. Prerequisite: admission to the MBA Program, Graduate CIS Certificate Program or other graduate programs or by permission of the chair of the CIS Department.

CIS 5350. Advanced Database Concepts/(3).On Demand. Investigation and application of advanced database concepts including Database Administration, database technology and selection and acquisition of database management systems. In-depth practicum in data modeling and system development in a database environment will be emphasized utilizing both mainframe and micros. Prerequisite: CIS 4790 or equivalent.

CIS 5500. Independent Study/(1-4).F;S.

CIS 5530-5549. Selected Topics/(1-4).F;S.

CIS 5580. Data Communications and Networking/(3).F;S. This course is designed to provide the student with the basic concepts of data communications and networks. Emphasis will be on the technical and the theoretical skills of data

communications and networks that will be needed by those who will be involved in the analysis, design and programming of computer information systems. Students will be required to design a network. Prerequisite: CIS 3250 (CIS 3250 can be taken concurrently).

CIS 5585. Advanced Data Communications & Networking/(4).F;S. This course is a continuation of CIS 5280 and explores advanced topics in data communications and networking. It encompasses parts 3 and 4 of the CCNA (Cisco Certified Network Associate) certification and, upon successful completion, allows students to take the CCNA certification exam. Prerequisite: CIS 5280.

CIS 5610. Global Information Technologies/(3).On Demand. This course presents students with the concepts and issues inherent in global information technology. The course examines the issues associated with using technology in a global environment, how global systems are developed, how culture, language, etc. impact systems and their development, outsourcing, strategies for global systems development and use, and issues facing Far East, European, Latin America, and Third World countries. Prerequisite: graduate status.

CIS 5620. IS Strategy, Policy, and Governance/(3).On Demand. This course examines how to effectively lead an information systems organization. Chief Information Officers are tasked to take part in determining corporate strategy based on information technology and its potential role in corporate objectives - while determining the IS (Information System) strategy to most effectively implement the corporate strategy in terms of information technology, IS personnel, data, and telecommunications. That IS strategy will also be implemented in terms of an IS policy, and then executed as IS governance. IS governance will include personnel issues, legal and financial obligations, data privacy and security, vendor relations, and business unit liaison.

CIS 5630. Advanced Data Management/(3).On Demand. Data mining is a broad area dealing with the analysis of a large volume of data that integrates techniques from several fields including machine learning, statistics, pattern recognition, artificial intelligence, and database systems. Data mining is a rapidly growing field that supports decision-making by detecting patterns, devising rules, identifying new decision alternatives and making predictions about the future. The course objective is to present the leading data mining methods and their application to real-world problems. The course is organized around a number of well-defined data mining tasks such as description, classifications, estimation, predictions, and affinity grouping and clustering. The topics covered include: introduction to knowledge discovery in the databases (KDD), statistical methods, emerging modeling techniques such as neural networks, and others.]

CIS 5680. Developing Software Solutions/(3).On Demand. This course focuses on the building of software systems including programming, logic, managing operating systems, and configuring large information systems, such as enterprise resource planning (ERP) systems. In this course, students will use a popular software package to build a working programming interface to solve business problems.

CIS 5710. e-Business Systems/(3).On Demand. This seminar course discusses e-business issues that are current, applicable, relevant, and interesting. Students are expected to develop and execute a team project throughout the course. Relevant areas of e-business studied will include: electronic commerce, personalization management systems, content management systems, customer relations management systems, and community systems. This course ties together concepts from different areas of management and the economic, behavioral, functional and technical aspects of information systems.

CIS 5720. Advanced Internet Technologies/(3).On Demand. In this course, students will have the opportunity to learn the technologies that are commonly used to develop e-business. These enabling technologies include ASP.NET, VB Script, Java2EE, XML, Web Service, XHTML, DHTML, Java Script, JSP, among others. The technologies that this course incorporates may change based upon current industry trends. This course concentrates on the skills to use these technologies and the business processes that drive Internet development, so that students are able to develop a robust, reliable, functional, and secure industry-level e-business web site. Prerequisite: CIS 5710.

CIS 5830. Managing Security/(3).On Demand. This course is designed as a broad overview of important security topics that are relevant to people and businesses. Relevant areas of security that will be studied include: the need for security on a personal and business level, the management practices surrounding security issues, network security strategies, human factors, access, firewalls, disaster recovery plans, personal security issues, personal and business forensics issues.

CIS 5840. Advanced Security/(3).On Demand. This course is designed to cover the main common body of knowledge topics identified by the Certified Information Systems Security Professional (CISSP) certification program. Topics include security management practices, access control, security models and architecture, physical security, telecommunications and

networking security, cryptography, disaster recovery and business continuity, law, investigation, ethics, applications and systems development, computer forensics and, operations security. Prerequisite: CIS 5830.

CIS 5850. Information System Project/(3)On Demand. Using a team concept, students will analyze, design, create, and implement a working information system for a public or private organization. Emphasis will be placed on project management, rapid application development, and the development of quality systems for clients.

CIS 5989. Graduate Research/(1-9).F;S. This course is designed to provide access to University facilities for continuing graduate research at the master's and specialist's levels. Graded on an S/U basis. CIS 5989 does not count toward a degree.