INFORMATION SYSTEMS AND TECHNOLOGY

Department Information

Department of Information Systems and Technology website https://www.southalabama.edu/colleges/soc/cist (https://www.southalabama.edu/colleges/soc/cist/)

Title	Name
Senior Instructor & Department Chair, Information Technology Degree Program Coordinator	Mrs. Angela M. Clark
Associate Professor & Associate Dean, Cybersecurity Degree Program Coordinator	Dr. Michael Black
Associate Professor, Computer Information Systems Degree Program Coordinator	Dr. David Bourrie
Associate Professor, Health Informatics Degree Program Coordinator	Dr. Matt Campbell

Computer Information Systems

The Computer Information Systems (CIS) discipline centers on the development of systems that will improve the performance of people in organizations. Computer Information Systems professionals design, implement, and maintain the information systems that form the backbone of today's global economy. Computer Information Systems graduates pursue professional careers as application developers, database analysts, systems analysts, IS project managers and directors. The combination of business, technical, and interpersonal skills are what recruiters seek in CIS graduates.

The Computer Information Systems degree program can be completed either on-campus or online. The online course curriculum allows students to complete all program requirements in full-time or part-time enrollment. Additionally, students are not required to enroll in a certain number of courses each semester to participate in the online degree program.

Cybersecurity

Cyberattacks continue to increase in frequency and have a tremendous impact on governments, organizations, and individuals, costing billions of dollars each year. The demand for trained cyber professionals to combat these threats continues to grow. Our program prepares students to enter the cybersecurity workforce with the necessary skills to address these challenges. Graduates are prepared to manage, administer, and protect critical information infrastructures; defend organizations from emerging cybersecurity threats; and respond effectively to the dynamic cybersecurity landscape.

Health Informatics

Technology is revolutionizing the way that healthcare is delivered both in the United States and around the world. The Health Informatics discipline focuses on improving patient care and outcomes through the use of information systems. Health Informaticists accomplish this in three main ways: supporting the healthcare provider, improving the efficiency and effectiveness of the healthcare organization, and empowering the patient to be more involved in their own care. Health Informatics graduates pursue professional careers with hospitals, large clinics, healthcare software vendors, and various state and federal agencies. The combination of healthcare, technical, and interpersonal skills allow HI graduates to enter these organizations and be productive immediately without the additional training that other traditional technologists may require. Health Informatics is a rapidly growing field that provides graduates who save lives and impact society through the use of technology.

Information Technology

Information technology professionals utilize state-of-the-art, computer-based tools to deliver today's rapidly evolving computing technology to knowledge workers in widely diverse situations. The information technologist must be prepared to work in the complex network and World-Wide-Web environments to meet the needs of the end users in today's organizations. These tasks require bringing solutions together using the different technologies developed by the computer engineers, computer scientists, and information scientists.

Degrees, Programs, or Concentrations

- CIS Applied AI Certificate (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/applied-ai-certificate/)
- Computer Information Systems (BS) (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/information-systems-bs/)
- Computer Information Systems (MS) (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/information-systems-ms/)
- Cybersecurity (MS) (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/cybersecurity-ms/)
- Graduate Information Systems Cybersecurity Certificate (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/cybersecurity-certificate/)
- Health Informatics (BS) (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/health-informatics-bs/)
- Health Informatics Certificate (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/health-informatics-certificate/)
- Information Systems Minor (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/information-systems-minor/)
- Information Technology (BS) (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/information-technology-bs/)
- Information Technology Minor (https://bulletin.southalabama.edu/programs-az/computing/information-systems-technology/information-technology-minor/)

Courses

Computer Info Sciences (CIS)

CIS 010 Computer Proficiency Exam 0 cr
The purpose of this course is to administer the Computer Proficiency Exam (CPE) for enrolled students. The CPE consists of multiple choice and performance-based questions for general computer, internet, WWW, e-mail, and office application concepts. Performance-based questions require a series of actions in a simulated environment to demonstrate specific skills being assessed. No outside materials or assistance from the applications' Help files are allowed.

CIS 101 Freshman Seminar CIS 2 cr
A course for first-time students that assists with maximizing the student's potential to achieve academic success and to adjust responsibly to the individual and interpersonal challenges presented by college life for a major in the School of CIS. Taught in small groups, the course provides an introduction to the nature of higher education and a general orientation to the functions and resources of the University and the School of CIS. Extensive reading and writing assignments relevant to the student's first year experience are required.

CIS 110 Intro to Comp-Info Sciences 3 cr
An introduction to information technology using a programming language to study applications in text searching, in real-time 3-D animation, and in sound production. A discussion of the social, ethical, economic, and philosophical implications of computing.

CIS 115 Beginning Programming 3 cr
A first course in programming uses an interpreted, interactive, object-oriented programming language. Coverage includes algorithmic problem solving, logical thinking, fundamentals of programming, variables and static values, sequential coding, decisions, and repetition.
Prerequisite: MMT 080 or A02 23 or (MA 112 Minimum Grade of C or MA 171 Minimum Grade of C) or MA 267 Minimum Grade of C or (MA 125 Minimum Grade of C or MA 132 Minimum Grade of C)

CIS 121 Prob Solv-Prog Concepts II 4 cr
Continuation of CIS 120. Topics include: design concepts, abstract data types, use of object libraries, dynamic storage allocation, stacks, queues, link lists, random access files, testing and software engineering practices.
Prerequisite: (CIS 120 Minimum Grade of C or CIS 141 Minimum Grade of C)

CIS 140 Intro to Tech for Healthcare 3 cr
This course is designed to provide a broad-based introduction to the use of computers and productivity software technologies for healthcare providers. Topics to be covered include use of a current Operating System and basic file management; the fundamentals of word processing, spreadsheet and graphics-based presentation software; basic image management related to documents and reports; as well as electronic health records systems. Other topics covered include information assurance, protecting patient privacy, social networks, computing safety, and professional coping skills. Credit cannot be received for both CIS 140 and CIS 150.

CIS 150 Intro to Computer Applications 3 cr
This course is designed to provide a broad based introduction to the use of computers and productivity software technologies. Topics to be covered include: use of a current Operating System and basic file management; the fundamentals of word processing, spreadsheet and graphics-based presentation software; and basic image management related to documents and reports. Other topics covered include information assurance and computing safety as related to PC/Internet usage. Credit cannot be received for both CIS 140 and CIS 150.

CIS 150L Intro to Comp Applications Lab 0 cr
Laboratory course for CIS 150, Introduction to Computer Applications.

CIS 190 Special Topics- 1-3 cr
Selected topics in computer and information sciences. Requires permission of Specialization Coordinator.

CIS 210 Intro to C++ Programming 3 cr
Introduction and fundamentals of C++ programming, input-output operations, variables, data types, arithmetic expressions, control statements, looping, functions, arrays, pointers, strings, structures, and abstract data types.
Prerequisite: MA 125 (may be taken concurrently) Minimum Grade of C
Cross-Listed: CPE 260

CIS 211 Advanced C++ Programming 1 cr
Advanced concepts in C++ programming, constructors, destructors, classes and operation overloading.
Prerequisite: (CIS 121 Minimum Grade of C or CIS 210 Minimum Grade of C)

CIS 227 Numerical Computation I 3 cr
Floating point numbers, representation, and errors; software tools for scientific computing; elementary problems in scientific computing.
Prerequisite: MA 126 Minimum Grade of C or MA 233 Minimum Grade of C

CIS 230 Adv Data-File Structures 3 cr
Extension of elementary data structures as covered in CIS 121, techniques to organize and access collections of data. Definition, implementation, and use of Classes and Abstract Data Types (ADT). The use of ADTs and objects for solving CIS problems. Network, hierarchical, and relational data models leading to Database Management Systems. Topics include: recursion, search trees, algorithmic complexity, advanced searching and sorting algorithms, and graphs.
Prerequisite: (CIS 121 Minimum Grade of C or CIS 142 Minimum Grade of C or CIS 211 Minimum Grade of C) and MA 267 Minimum Grade of C

CIS 250 Advanced Comp Applications 3 cr
This course is designed to provide continuing, advanced coverage of productivity software technologies. Topics to be covered in depth include: fundamental and advanced features of spreadsheet and database management software. Other topics covered include information assurance and computing safety as related to PC/Internet usage.

CIS 250L Adv Comp Applications Lab 0 cr
Laboratory course for CIS 250, Advanced Computer Applications.
Prerequisite: CIS P or CIS 150 Minimum Grade of C

CIS 300 Information Tech in Society 1 cr
A discussion of personal, local, national, and global impact of information technology on ethical, legal, and social issues. Requires Junior standing in the School of Computing.

CIS 321 Data Comm and Networking 3 cr
An introduction to data communications, computer networking and network operating systems. Topics include: basic concepts of data transmission, network architectures, communications devices, and communication protocols.
Prerequisite: ISC 245 Minimum Grade of C or ITE 271 Minimum Grade of C or CIS 120 Minimum Grade of C or CSC 120 Minimum Grade of C

CIS 322 Operating Systems 3 cr
This course covers the development of operating systems that control computing systems. Topics include: file systems, process management, scheduling, memory management (real and virtual), security, and concurrency. Case studies of operating systems are examined.
Prerequisite: (CIS 230 Minimum Grade of C or CIS 263 Minimum Grade of C)

CIS 324 Database Design-Dev-Mgt 3 cr
Analysis, design, and development of desktop database systems. Coverage of normalization concepts, DBMS models, E-R/Semantic modeling, and query processing.
Prerequisite: ((MA 112 Minimum Grade of C or MA 171 Minimum Grade of C) or (MA 120 Minimum Grade of C or MA 287 Minimum Grade of C) or MA 267 Minimum Grade of C or (MA 125 Minimum Grade of C or MA 132 Minimum Grade of C) or A02 23) or MMT 080 and (ISC 245 Minimum Grade of C or ITE 271 Minimum Grade of C) or (CSC 121 Minimum Grade of N or CIS 121 Minimum Grade of C)

CIS 401 Accelerated Programming 3 cr
This course presents programming concepts in an accelerated manner. Coverage includes ADT's, Classes and Class Libraries, and simple data structures such as linked lists, stacks, queues. Laboratory assignments will be done in a high level, object-oriented language. This course does not count towards a graduate degree in CIS. Requires prior programming experience and permission of Coordinator.
Cross-Listed: CIS 121, CIS 123, CIS 501

CIS 402 Accelerated OS-Comp Arch 3 cr
This course presents computer architecture and operating systems concepts in an accelerated manner. Coverage includes machine and assembly languages, functioning of a simple processor, machine level data flow, microprogramming, I/O, interrupts and processing drivers, memory management, dynamic process scheduling, and multi-tasking. This course does not count toward a graduate degree in CIS. Requires prior programming experience desired and permission of Coordinator.
Cross-Listed: CIS 322, CIS 502

CIS 403 Accelerated Data-File Structs 3 cr
This course applies advanced programming concepts and techniques to data structures such as linear and linked list trees, records, files, and database. Sequential and random access file processing methods; searching and sorting methods. Laboratory assignments will be done in a high- level, object-oriented language. This course does not count toward a graduate degree in CIS.
Prerequisite: CIS 121 Minimum Grade of B or CIS 123 Minimum Grade of B or CIS 142 Minimum Grade of B or CIS 401 Minimum Grade of B or CIS 501 Minimum Grade of B
Cross-Listed: CIS 230

CIS 490 CIS Sp Top - 3 cr
Advanced selected topics in computer and information sciences. Requires permission of the specialization coordinator.
Prerequisite: CSPC 30

CIS 494 Directed Studies 1-3 cr
May be taken for a maximum of six credits, only three of which may be applied to the CIS major or minor. Requires permission of the specialization coordinator.

CIS 496 CIS Internship 3 cr
CIS internship program is designed to give advanced students practical experience in the computer industry. Students will work on sponsored projects with faculty advisors. Credit may apply to degree with approval of the dean. Requires GPA 2.75 or higher and permission of the Dean.

CIS 497 Senior Capstone Experience-W 3 cr
A comprehensive team project will be completed and documented. Writing assignments will reinforce the importance of life-long learning, leadership skills, and the ethical issues of computing as well as appropriate resume and job application cover letter creation. Oral and written reports will be required. This course is to be taken the final semester of the student's degree program. Requires application for graduation filed the semester before registering for the course. Completion of the following courses according to major: Computer Science-CSC 322 and CSC 333; Information Systems-ISC 360; Information Technology-ITE 370.
Prerequisite: (EH 372 Minimum Grade of C or EH 373 Minimum Grade of C) and (CSC 322 Minimum Grade of C and CSC 333 Minimum Grade of C) or ISC 360 Minimum Grade of C or ITE 370 Minimum Grade of C
Corequisite: CIS 498

CIS 498 CIS Senior Seminar 0 cr
A series of mini-seminars designed to prepare graduating seniors for transition to professional careers in computing or graduate study and to assess student learning outcomes in the curriculum. Mini-seminars would include, but would not be limited to: resume development, interviewing tips and techniques, career planning, professionalism and ethics in the workplace, and advanced graduate study and professional development. Each student will be required to complete one or more senior exit exams and a senior exit survey. Prerequisite: Computer Science: CSC 331; Information Systems: ISC 360; Information Technology: ITE 370.
Prerequisite: CIS 497 (may be taken concurrently) Minimum Grade of C and (CSC 331 Minimum Grade of C or ISC 360 Minimum Grade of C or ITE 370 Minimum Grade of C)
Corequisite: CIS 497

CIS 499 CIS Senior Honors Project - H 3-6 cr
Under the advice and guidance of a faculty mentor, honors students will identify and carry out a research project, relevant to the field of computing, that will lead to a formal presentation at the annual Honors Student Colloquium. The senior honors project will be judged and graded by three faculty chaired by the honors mentor. This course is required for Honors recognition and may be repeated for up to 6 credit hours. Requires completion of an approved project prospectus and permission of the appropriate Coordinator.
Prerequisite: CSPC 30

CIS 501 Accelerated Programming 3 cr
This course presents programming concepts in an accelerated manner. Coverage includes ADT's, Classes and Class Libraries, and simple data structures such as linked lists, stacks, queues. Laboratory assignments will be done in a high level, object-oriented language. This course does not count towards a graduate degree in CIS. Prerequisite: Prior programming experience desired and permission of Coordinator.
Cross-Listed: CIS 121, CIS 401

CIS 502 Accelerated OS-Comp Arch 3 cr
This course presents computer architecture and operating systems in an accelerated manner. Coverage includes machine and assembly languages, functioning of a simple processor, machine level data flow, microprogramming, I/O, interrupts and processing drivers, memory management, dynamic process scheduling, and multi-tasking. This course does not count towards a graduate degree in CIS. Prerequisites: Prior programming experience and permission of Coordinator.
Cross-Listed: CIS 322, CIS 402

CIS 503 Accelerated Data-File Structs 3 cr
This course applies advanced programming concepts and techniques to data structures such as linear and linked list, trees, records, files, and database. Sequential and random access file processing methods; searching and sorting methods. Laboratory assignments will be done in a high-level object-oriented language. This course does not count towards a graduate degree in CIS.
Prerequisite: (CIS 121 Minimum Grade of B or CIS 123 Minimum Grade of B or CIS 142 Minimum Grade of B or CIS 501 Minimum Grade of B) or CIS 401 Minimum Grade of B
Cross-Listed: CIS 230, CIS 403

CIS 504 Accelerated Networks - Comm 3 cr
This course presents networks and communications concepts in an accelerated manner. Coverage includes signaling concepts, communications devices, switching, network architectures and protocols, OSI reference model, network management and planning. This course does not count towards a graduate degree in CIS.
Prerequisite: (CIS 222 Minimum Grade of B or CIS 322 Minimum Grade of B or CIS 402 Minimum Grade of B or CIS 502 Minimum Grade of B or ISC 506 Minimum Grade of B)
Cross-Listed: CIS 321, CIS 404

CIS 505 Programming Languages 3 cr
This course examines formal language concepts of programming languages including syntax and basic grammars. Language features such as data types and structures, control structures, and data flow will be studied. Laboratory assignments include the use of high level languages as well as the use of windows API.
Prerequisite: (CIS 230 Minimum Grade of B or CIS 263 Minimum Grade of B or CIS 403 Minimum Grade of B or CIS 503 Minimum Grade of B or ISC 508 Minimum Grade of B)
Cross-Listed: CIS 333, CIS 405

CIS 518 CIS Research Methodologies 3 cr
A review of computer and information science literature and research topics. Techniques for defining research goals will be described. Students will be expected to identify a research area and conduct a complete review of the literature.

CIS 590 CIS Sp Top - 3 cr
Advanced selected topics in computer and information sciences. Requires permission of the Graduate Coordinator

CIS 594 Directed Studies - 1-3 cr
May be taken for a maximum of three credits to count toward the degree. Requires permission of the Director of Graduate Studies.

CIS 595 CIS Research Development 1-3 cr
Development of the research proposal for master's thesis. Requires permission of the Director of Graduate Studies.
Prerequisite: CIS 518 Minimum Grade of S

CIS 596 CIS Graduate Internship 3 cr
CIS graduate internship program is designed to give graduate students practical experience in the computer industry. Students will work on sponsored projects with faculty advisors. Up to three hours may be counted toward the degree. Requires permission of the Director of Graduate Studies.

CIS 597 CIS Graduate Seminar 1 cr
This course prepares graduate assistants in the School of CIS to provide support and assistance to faculty for instruction in School of CIS classes. Topical coverage includes but is not limited to: graduate assistant expectations and responsibilities, protection of student educational information (FERPA), practical skills in assisting in computing instruction, graduate assistant best practices, and tips from faculty and experienced graduate assistants. This course does not count towards a graduate degree in CIS. Requires permission of the Director of CIS Graduate Studies.

CIS 598 CIS Project 1-3 cr
Approved investigation of original problems under direction of a faculty member. This course may be repeated for a maximum of three hours of credit towards the degree. Requires permission of the Director of Graduate Studies.

CIS 599 CIS Thesis 1-9 cr
This course may be repeated for a maximum of six credits. A thesis committee will provide direction during the thesis. Requires approval of the thesis project by graduate faculty and the Director of Graduate Studies.
Prerequisite: CIS 595 Minimum Grade of B

CIS 694 Directed Study - 3 cr
This course focuses on the development of the doctoral prospectus leading to the the defense of a dissertation.

CIS 799 Dissertation 1-9 cr
This course focuses on the development of the dissertation.

Cybersecurity (CYB)

CYB 530 Information Assurance/IT Audit 3 cr
This course covers the understanding and managing of risks and threats to information and information systems. This includes protecting and defending information and information systems by ensuring through authorization and other means concepts such as accessibility, secrecy, reliability, and authentication.

CYB 535 Digital Forensic Analysis 3 cr
This course provides students with advanced tools, techniques, and methodologies for accumulating, securing, analyzing, managing, and reporting evidence related to a forensics examination. The professional communication and presentation of the results of forensic investigations will be emphasized.

CYB 538 OS Concepts and Security 3 cr
This course examines the concepts of operating systems such as memory and virtual memory management, as well as processor, process, device, and file management. Topics include the management and organization of network operating systems and operating system security and ethics. Students will manage, configure, and secure operating systems such as Windows, Unix, and Linux in laboratory environments.

CYB 540 Network Security Management 3 cr
This course examines network and web security issues including: risks and threats, system access points, hardware and software defense methods, and organizational security policies. The course will cover the analysis of systems for vulnerabilities, the implementation of security procedures, the monitoring of systems for security breaches, and the recovery or restoration of breached systems.

CYB 545 Penetration Testing 3 cr
This course will explore the methodologies of penetration testing. Students will learn about the generalized attack and how to apply it to create a valid penetration testing model. The concepts of black box, white box, and gray box testing will be introduced using industry-accepted tools and procedures. In addition, students will participate in several labs using the tools introduced in class to assess the current security of a controlled network.
Prerequisite: (CYB 540 Minimum Grade of B)

CYB 555 Data Security 3 cr
This course examines the major concepts of data security such as confidentiality, integrity, availability, authenticity, and non-repudiation. Topics include the four types of data security, the five major elements of data security, the three A's of data security, and the seven components of data security strategies. Students will conduct labs that will expose them to the techniques and tools used in data security management within an organization.
Prerequisite: (CYB 538 Minimum Grade of C)

CYB 560 Scripting 3 cr
This course provides an in-depth examination of scripting for cybersecurity using three languages: Python, Perl, and Bash. Students will create and deploy scripts for various cybersecurity tasks using Python, Perl, and Bash. They will gain skills in automating processes, analyzing data, and integrating scripting with existing security tools, enhancing their capacity to respond to and manage cybersecurity threats effectively.

CYB 569 Industrial Control Systems 3 cr
This course introduces Industrial Control Systems (ICS) with a focus on Programmable Logic Controllers (PLCs), SCADA systems, and Human-Machine Interfaces (HMIs). Students will learn how these technologies operate in industrial settings and explore cybersecurity threats, including Modbus attacks. Hands-on activities include using Arduino Uno R3 microcontrollers to simulate ICS environments and programming basic control functions with ladder logic.

CYB 570 Cybersecurity Ethics 3 cr
This course examines the topic of ethics from a cybersecurity perspective. Topics include an introduction to the field of ethics; the three ethical frameworks; ethical hacking; issues related to privacy rights, surveillance, and intellectual property; and current cybersecurity codes of ethics. Students will further examine the topic of ethics through writing assignments, utilizing the major ethical frameworks – virtue, utilitarian, and communitarian.

CYB 590 Special Topics 3 cr
This course aims to introduce the concepts of a scripting language using Python. It will examine the differences between compiled and interpreted languages. The emphasis will be on developing scripts using Python in a command line environment (CLI) to solve real-world problems.

Health Informatics (HI)

HI 300 Health Info Clinical Environme 3 cr
This course provides an overview of concepts, terms, organization, and processes associated with patient care and clinical environments as they pertain to health informatics. The entire process of how a person accesses, moves within, and exits the system both as in inpatient and outpatient to obtain care. Students will observe and report on a variety of clinical settings and healthcare specializations throughout the semester. This course in designed for students with no prior clinical experience.
Cross-Listed: ISC 300

HI 410 Health Informatics 3 cr
This course provides an overview of the concepts, terms, tools, and architectures associated with health informatics as applied to healthcare delivery. Topics include: electronic record systems, computerized physician order entry, health system standards, terminologies, workflow modeling, security and privacy of clinical data, clinical reporting, and the impact of information technology use on the quality and efficiency of health care delivery and outcomes.
Cross-Listed: ISC 310, ISC 410

HI 450 Health Data Secur/Compliance 3 cr
This course involves a thorough examination of the security and privacy requirements of the Health Insurance Portability and Accountability Act (HIPAA) and the implementation of these requirements in the clinical environment. Students will learn how to address security issues from system development all the way through post-implementation, how to evaluate systems for vulnerabilities, and how to identify protected health information and covered entities.
Prerequisite: ISC 300 Minimum Grade of C or HI 300 Minimum Grade of C and (ISC 410 Minimum Grade of C or HI 410 Minimum Grade of C)
Cross-Listed: ISC 450

HI 455 Hlth Data Mgt & Decision Supp 3 cr
This course focuses on the design and management of electronic medical record systems and clinical decision support systems. Course content related to electronic medical record systems includes architectural components, technical design issues, and management; and, content related to clinical decision support systems includes decision support roles, extracting useful information from data, and legal and regulatory restrictions. Laboratory assignments will provide students with opportunities to interact with these systems. Prerequisites: HI 300 or ISC 300 and HI 410 or ISC 410.
Prerequisite: ISC 300 Minimum Grade of C or HI 300 Minimum Grade of C and ISC 410 Minimum Grade of C or HI 410 Minimum Grade of C
Cross-Listed: ISC 455

HI 460 Consumer Health Informatics 3 cr
This course provides an overview of the concepts, terms, tools, and architectures associated with consumer health informatics. It explores the design, use and impact of technologies that aim to engage consumers to participate in their health and healthcare. Topics include: patient engagement, persuasive system design, gamification, behavior change theory, patient portals, wearables, IoT and mHealth (mobile health).
Prerequisite: (HI 300 Minimum Grade of C and HI 410 Minimum Grade of C)

HI 550 Health Data Secur/Compliance 3 cr
This course involves a thorough examination of the security and privacy requirements of the Health Insurance Portability and Accountability Act (HIPAA) and the implementation of these requirements in the clinical environment. Students will learn how to address security issues from system development all the way through post-implementation, how to evaluate systems for vulnerabilities, and how to identify protected health information and covered entities.

HI 555 Hlth Data Mgt & Decision Supp 3 cr
This course focuses on the design and management of electronic medical record systems and clinical decision support systems. Course content related to electronic medical record systems includes architectural components, technical design issues, and management; and, content related to clinical decision support systems includes decision support roles, extracting useful information from data, and legal and regulatory restrictions. Laboratory assignments will provide students with opportunities to interact with these systems.

Information Systems (ISC)

ISC 245 Info Systems in Organizations 3 cr
An overview of information systems topics from an organizational and managerial perspective. Topics include current information technology and systems, such as the Internet and its organizational impacts; the emergence of global economy and digital firms; and the ethical and social impacts of information systems, such as privacy, intellectual property rights, and liability. Issues and strategies regarding information systems planning, systems development, decision making, and using IT for competitive advantage are discussed. Throughout the course, students will investigate the strategic uses of information technology in current industry-specific situations.

ISC 272 Systems Architecture 3 cr
This course introduces students to Information Technology hardware and systems software concepts. Topics include: computer hardware, operating systems, system software, hardware and software integration, operating procedures, system performance, security/safety, and compatibility. Student labs and hands-on activities will include: Windows, Unix, and Linux systems, system utilities and software tools. Credit cannot be received for both ITE 272 and ISC 272.
Prerequisite: CIS 115 Minimum Grade of C
Cross-Listed: ITE 272

ISC 285 Intermediate Programming 4 cr
A second course in programming (using a visual, event-driven programming language) that builds on CIS 115. Topics include: transition to visual language, processing data, decisions, loops, methods, arrays and lists, text processing, structured data types. Programming projects are required. Credit cannot be received for both ISC 285 and ITE 285.
Prerequisite: CIS 115 Minimum Grade of C
Cross-Listed: ITE 285

ISC 315 Artificial Intelligence Basics 3 cr
This course introduces artificial intelligence and machine learning, covering their history, methodologies, and societal implications. Students will explore key paradigms and application areas such as computer vision, natural language processing, and robotics. The course is suitable for students from all backgrounds with basic computing knowledge.
Prerequisite: (CIS 115 Minimum Grade of C)

ISC 325 Survey of Machine Learning 3 cr
This course offers a comprehensive survey of the fundamental concepts, methodologies, and applications of machine learning. Learners will delve into supervised and unsupervised learning techniques, neural networks, deep learning principles, and their real-world applications. Ethical considerations and the societal impact of machine learning will also be examined, preparing students to critically evaluate and contribute responsibly to the field.
Prerequisite: (ISC 315 Minimum Grade of C)

ISC 335 Fundamentals of Deep Learning 3 cr
This course provides a comprehensive introduction to the concepts and techniques of deep learning. It covers the fundamental mechanics of neural networks, including perceptrons, neurons, feedforward networks, and backpropagation. Students will explore advanced architectures like convolutional neural networks (CNNs) and recurrent neural networks (RNNs), with a focus on practical applications in computer vision. The course includes hands-on assignments and projects to reinforce theoretical understanding and practical skills.
Prerequisite: (ISC 315 Minimum Grade of C)

ISC 345 Large Language Models 3 cr
This course provides an in-depth study of the principles, architectures, and applications of large language models (LLMs). Learners will learn about the theoretical foundations, training methodologies, and practical uses of LLMs. This course will address application areas such as natural language processing, text generation, and conversational AI. The course will cover key concepts such as transformer architectures, fine-tuning, prompt engineering, and ethical considerations. Learners will gain practical experience through hands-on projects and case studies.
Prerequisite: (ISC 315 Minimum Grade of C)

ISC 360 Info Sys Analysis and Design-W 3 cr
A thorough examination of the analysis and design of computer information systems from the systems analysts view. The course will use an established software development methodology. At each step in the software development life cycle, both the methodologies used and the documentation required will be examined.
Prerequisite: ISC 245 Minimum Grade of C and (EH 102 Minimum Grade of C or EH 105 Minimum Grade of C)

ISC 361 Advanced Application Development 3 cr
This course explores advanced topics in applications development by connecting web applications written in a modern programming language with databases. Other topics: integrating programming components and libraries, application development and testing methodologies, and using an object oriented approach for multi-tiered applications. Programming projects are required. Credit cannot be received for both ITE 370 and ISC 361
Prerequisite: CIS 324 Minimum Grade of C and (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)
Cross-Listed: ITE 370

ISC 462 IS Strategy and Policy 3 cr
This course provides the top management, strategic perspective for aligning competitive strategy with information systems. Issues include the development and implementation of policies and plans to achieve organizational goals, including security policy.
Prerequisite: CIS 324 Minimum Grade of C

ISC 472 Advanced Data Management 3 cr
This course provides an introduction to the concepts and technologies of big data. Key concepts and techniques allow organizations to analyze structured and unstructured data/information collected from transaction processing systems, data warehouses, and distributed systems. The ultimate purpose of descriptive, predictive, and prescriptive analytics is to support high quality decision support for executives and managers. Concepts of data mining, data storage, non-relational platforms, and considerations for new and emerging technologies are described in detail.
Prerequisite: (CIS 324 Minimum Grade of C or CSC 324 Minimum Grade of C) and (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C or CSC 231 Minimum Grade of C)

ISC 475 Info Systems Proj Management 3 cr
This course examines the principles and techniques of project management from an information systems perspective. Major topics covered include project context, project selection, and project planning. Students work in collaborative teams and are instructed in the use of a project software tool. Credit cannot be received for both ITE 475 and ISC 475.
Prerequisite: CIS 324 Minimum Grade of C
Cross-Listed: ITE 475

ISC 490 Special Topics 3 cr
Advanced selected topics in information systems. Prerequisite: Permission of the ISC Coordinator.

ISC 501 Programming for IS 3 cr
This course covers programming concepts required by Information Systems professionals to provide a solid foundation for building applications. Coverage includes: data types, decision structures, repetition structures, graphical user interfaces (GUI), methods, arrays, files, and object oriented programming (OOP) concepts.

ISC 507 IS Database Processing 3 cr
Analysis, design and implementation of database systems for IS professionals. Coverage includes DBMS models, E-R modeling, normalization concepts, and the use of queries for processing data.

ISC 516 AI Theory and Programming 3 cr
Introduction to basic concepts, implementation techniques, and philosophies of artificial intelligence and intelligent systems. Introduction to expert systems, fuzzy logic systems, neural networks, and techniques for artificial intelligence programming. The fundamentals of an AI programming language (LISP or PROLOG) will be presented. The language will then be used to solve problems in typical AI applications. Prerequisite: Graduate Professional Component Standing.
Prerequisite: CSGD 030

ISC 545 Management Information Systems 3 cr
This course provides an overview of information systems from an organizational, managerial, and technical perspective. The topics covered will focus on the strategic role of information systems and information technology in business processes, change and knowledge management, group and individual decision-making, and electronic commerce. Specific topics include current hardware, infrastructure and connectivity technologies, software and systems development methodologies. Internet-based applications, management challenges and opportunities created by information systems and global connectivity such as privacy, data and systems security and control, intellectual property, ethical and social consequences of information technology, and the impact of digital integration on an organization's competitiveness, products, services, procedures, and management structures. Prerequisite: Permission of the Director of CIS Graduate Studies.

ISC 550 Health Data Security & Comp 3 cr
This course involves a thorough examination of the security and privacy requirements of the Health Insurance Portability and Accountability Act (HIPAA) and the implementation of these requirements in the clinical environment. Students will learn how to address security development all the way through post-implementation, how to evaluate systems for vulnerabilities, and how to identify protected health information and covered entities.

ISC 551 Human-Comp Interface Design 3 cr
The course covers principles, guidelines, and methods in human computer interface design. Students complete a project involving the development, evaluation, and demonstration of a user interface. The interface is designed around a user and task analysis performed on a given problem. Students plan and conduct a usability study of a working prototype and report on results and recommendations.
Prerequisite: (ISC 501 Minimum Grade of B and ISC 507 Minimum Grade of B)

ISC 553 IS Web Site Management 3 cr
This course addresses the design, development, and management of a web server. Topics include the selection, installation, and configuration of an operating system and web server software, web server security and monitoring, and website maintenance.

ISC 555 Health Data Mgt/Decision Supp 3 cr
This course focuses on the design and management of electronic medical record systems and clinical decision support systems. Course content related to electronic medical record systems includes architectural components, technical design issues, and management; and, content related to clinical decision support systems includes decision support roles, extracting useful information from data, and legal and regulatory restrictions. Laboratory assignments will provide students with opportunities to interact with these systems.

ISC 559 IS App Design-Implementation 3 cr
Analysis and design of information systems infrastructures to support multiple locations, intranet/internet access, corporate privacy, and security. Capacity analysis and planning, installation, performance monitoring, and problem solving strategies. Prerequisites: ISC 501 and ISC 507
Prerequisite: (ISC 501 Minimum Grade of B and ISC 507 Minimum Grade of B)

ISC 560 Info Systems Analysis-Design 3 cr
This course will include an introduction to the systems development life cycle as well as a survey of analysis and design techniques. Detail topics will include information systems planning and project identification and selection, requirements collection and structuring, process modeling, data modeling, design of interface and data management, system implementation and operation, system maintenance, and change management implications of systems. Globalization issues in systems will also be discussed. Students will use current methods and tools such as rapid application development, prototyping, and visual development.

ISC 561 IS Database Management 3 cr
An introduction to database management systems. The data environment, basic technical concepts and systems resources, database concepts, including use and management of databases. Classical and current DBMS models will be presented. Laboratory project activity will involve definition, creation, and development of a database. Prerequisites: Graduate Professional Component.
Prerequisite: (ISC 507 Minimum Grade of B)

ISC 565 IS Project-Change Management 3 cr
A study of the concepts and techniques of project management from an information systems perspective. The course provides an overview of project lifecycle activities, and a focus on managerial, behavioral, and process issues that surround the dynamic context of systems development. The issue of managing the change brought about by the introduction or modification of information systems in organizations will be discussed. Students will be instructed in the use of software tools for project management.

ISC 567 IS Function Integration 3 cr
The tactical/operational responsibilities and roles of the CIO. Governance considerations that link the IS-business organizations. Current/emerging issues in creating and coordinating the key activities necessary to manage the day-to-day operations of the IS function. Coordinating skills and organizational IS infrastructure.
Prerequisite: (ISC 501 Minimum Grade of B and ISC 561 Minimum Grade of B)

ISC 568 IS Enterprise Integration 3 cr
Information systems role in transforming organizations and industries. An integrated view of the organization from an external and internal perspective. IS' internal role in integrating the enterprise through a cohesive set of business processes and functional applications to meet business needs. Enterprise resource planning and enterprise functionality. Collaborative systems. Consideration of external relations with suppliers, outsourcers, and customers.

ISC 590 IS Sp Top - 3 cr
Advanced selected topics in information systems. Prerequisite: Permission of ISC coordinator.

ISC 595 IS Project Proposal Develop 1-3 cr
Development of the project proposal for the Information Systems specialization master's project. Prerequisites: CIS 518, Graduate Professional Component, Permission of Director of CIS Graduate Studies.
Prerequisite: CIS 518 Minimum Grade of S

ISC 598 Information Systems Project 1-3 cr
This course may be repeated for a maximum of six (6) credits. A CIS project committee will provide direction during the project. Prerequisite: Approval of project proposal by the student's project committee, and permission by Director of CIS Graduate Studies.
Prerequisite: (ISC 595 Minimum Grade of B and CSIP P)

ISC 629 Comp Ecosystems 3 cr
This course focuses on developing expertise and preparation for independent research in computing ecosystems through an in-depth review of the computing literature. The course will explore concepts and issues associated with large scale parallel data processing, virtualized storage, application, and infrastructure architectures and the attendant security, privacy and legal issues.

ISC 673 Digital Investigations 3 cr
This course focuses on developing expertise and preparation for independent research in Digital Forensics Investigations through an in-depth review of the Digital Forensics literature. The student will be conversant in broad issues and trends in Digital Forensics as defined by skill sets and occupations.

ISC 675 Information Systems 3 cr
This course focuses on developing expertise and preparation for independent research in information systems through an in-depth review of the information systems literature. The course sill explore the current major streams of theory, research, and methodologies in information systems.

ISC 686 Risk Analysis 3 cr
This course focuses on developing expertise and preparation for independent research in risk analysis through an in-depth review of the risk assessment and information assurance literature. The student will be conversant in broad issues and trends in risk analysis as defined by techniques, methodologies, policies, frameworks, and skill sets.

Information Technology (ITE)

ITE 271 Info Techn in Organizations 3 cr
This course introduces students to the Information Technology (IT) concepts and the software that facilitates IT solutions. Topics include: data, information, and knowledge concepts, productivity software tools, role of networking and communication, the "digital phenomena", and the benefits of IT. Also included are IT program concepts such as: ethics, the importance of effective written and oral communication, continuous learning, and technology monitoring-evaluation.

ITE 272 Systems Architecture 3 cr
This course introduces students to the Information Technology (IT) hardware and systems software concepts. Topics include: computer hardware, operating systems, system software, hardware and software integration, operating procedures, system performance, security/safety, and compatibility. Student labs and hands-on activities will include: Windows, Unix, and Linux systems, system utilities and software tools.
Prerequisite: CIS 115 Minimum Grade of C
Cross-Listed: ISC 272

ITE 285 Intermediate Programming 4 cr
A second course in programming (using a visual, event-driven programming language) that builds on CIS 115. Topics include: transition to visual language, processing data, decisions, loops, methods, arrays and lists, text processing, structured data types. Programming projects are required. Credit cannot be received for both ISC 285 and ITE 285.
Prerequisite: CIS 115 Minimum Grade of C
Cross-Listed: ISC 285

ITE 370 Adv Application Development 3 cr
This course explores advanced topics in applications development by connecting web applications written in a modern programming language with databases. Other topics: integrating programming components and libraries, application development and testing methodologies, and using an object oriented approach for multi-tiered applications. Programming projects are required. Credit cannot be received for both ITE 370 and ISC 361.
Prerequisite: (ITE 285 Minimum Grade of C or ISC 285 Minimum Grade of C) and CIS 324 Minimum Grade of C
Cross-Listed: ISC 361

ITE 372 Advanced Operating Systems 3 cr
This course introduces students to advanced Operating Systems techniques and related system architecture concepts. Students will examine how Operating Systems retain parameters set during installation and customization as well as the basic strategies used in Operating System security. Students will use advanced command-line tools to discover and modify settings within the Operating System and will use advanced scripting techniques to parse data within Operating System's files.
Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C) and (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)

ITE 373 File Sys for Digital Forensics 3 cr
This course introduces students to advanced file system techniques used in Forensic Analysis. Students will examine the current principles in drive storage hardware and file systems, including Windows and Linux-based systems and evaluate possible data hiding techniques which can be employed within these systems. Students will be required to perform imaging of hard drives for analysis of possible hidden data using techniques covered in this course.
Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 375 Publishing for the WWW 3 cr
This course is an introduction to the models and tools used to develop documents for the World Wide Web. Course topics include website planning and design, markup and styling languages, graphics, multimedia utilization, typography, and scripting. Website design issues such as ethics, copyright and intellectual property rights are also covered. Prerequisites: CIS 321 and either ISC 272 or ITE 272 and either ISC 285 or ITE 285.
Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C) and (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)

ITE 380 Multimedia Production 3 cr
This course covers the models and tools of multimedia development and production. Development models include: message analysis, audience analysis, and media formats. Technical issues include: data formats, data interoperability, and hardware concepts. From a practical perspective, students will develop a multimedia project.
Prerequisite: (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 382 Network Administration 3 cr
This course examines the network and database administrator functions in an organization. Students study the functions required of an administrator to facilitate the usage of the environment while securing the resources. Various methods and software products will demonstrate the areas of access and security.
Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 384 Network Infrastructure Systems 3 cr
This course focuses upon the concepts of network hardware systems that provide interconnection of communication devices. Topics include: network architectures and technologies, concepts such as routing, addressing, and network protocols (TCP/IP and others). Students will be required to setup, configure, and manage wired and wireless network equipment such as switches, routers, access points, and gateways
Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 453 Web Site Management 3 cr
This course addresses the design, establishment and implementation of a World Wide Web site. Issues addressed are: definition of the site, establishment of a physical site, choice of a Web server, determination of software requirements, implementation details, security, management, and monitoring of the site.
Prerequisite: CIS 321 Minimum Grade of C and (ISC 272 Minimum Grade of C or ITE 272 Minimum Grade of C)

ITE 460 Python Programming 3 cr
This course aims to introduce the concepts of a scripting language using Python. It will examine the differences between compiled and interpreted languages. The emphasis will be on developing scripts using Python in a command line environment (CLI) to solve real-world problems.
Prerequisite: (ISC 285 Minimum Grade of C) or (ITE 285 Minimum Grade of C) or (CSC 120 Minimum Grade of C)

ITE 469 Industrial Control Systems 3 cr
This course introduces Industrial Control Systems (ICS) with a focus on Programmable Logic Controllers (PLCs), SCADA systems, and Human-Machine Interfaces (HMIs). Students will learn how these technologies operate in industrial settings and explore cybersecurity threats, including Modbus attacks. Hands-on activities include using Arduino Uno R3 microcontrollers to simulate ICS environments and programming basic control functions with ladder logic.
Prerequisite: (CIS 115 Minimum Grade of C and CIS 321 Minimum Grade of C) or (CSC 120 Minimum Grade of C and CSC 311 Minimum Grade of C)

ITE 473 Digital Forensic Analysis 3 cr
This course introduces students to acceptable methodologies of securing, collecting, analyzing and reporting data of a computer forensics investigation. Topics include: Ethics, introduction to computer investigations, evidence control, forensics tools, data acquisition, data recovery, data analysis and presenting the results. Students will be required to perform several forensics analyses in a controlled lab environment.
Prerequisite: ITE 372 Minimum Grade of C and ITE 373 Minimum Grade of C

ITE 474 Human Computer Interface 3 cr
Students will study the concepts of human-computer interaction and interface design. Topics include: detailed human-computer interaction concepts, modern graphical user interface models, and interface usability testing. Students will use rapid-prototyping tools to develop and test a typical user interface. Credit cannot be received for both ITE 474 and ISC 474.
Prerequisite: (ISC 285 Minimum Grade of C or ITE 285 Minimum Grade of C)
Cross-Listed: ISC 474

ITE 475 IT Project Management 3 cr
This course examines the principles and techniques of project management from an information technology perspective. Major topics include project context, project selection, and project planning. Students work in collaborative teams and are instructed in the use of a project software tool. Credit cannot be received for both ITE 475 and ISC 475.
Prerequisite: CIS 324 Minimum Grade of C
Cross-Listed: ISC 475

ITE 476 Network Security Management 3 cr
This course examines network and web security issues including: risks and threats, system access points, hardware and software defense methods, and organizational security policies. Labs will require students to analyze systems for potential threats, implement security procedures, monitor systems for security breaches, and institute recovery or repairs.
Prerequisite: ITE 382 Minimum Grade of C and ITE 384 Minimum Grade of C

ITE 480 Needs Assess-Tech Eval - W 3 cr
This course presents methodologies for assessing technological needs in support of organizational information requirements. Students learn the next logical step is a formal means of evaluating a given technology. Major topics of the course are specifying organizational needs, identifying potential technologies, evaluating potential benefits, assessing the organization's ability to utilize the technology. Students will examine planning for technological change and strategic implementation of the change.
Prerequisite: EH 102 Minimum Grade of C and ITE 271 Minimum Grade of C and ITE 285 Minimum Grade of C

ITE 482 Adv Web Development 3 cr
This is an advanced course in web programming and development. This course provides a hands-on approach using high-level development tools to learning advanced web programming concepts including server-side and database processing. Students will implement usability and security features into the development of modern web applications.
Prerequisite: CIS 324 Minimum Grade of C and ITE 375 Minimum Grade of C

ITE 484 Advanced Network Management 3 cr
This course explores advanced network management issues including: developing/designing network implementation strategies, managing users and data, providing operational support and help-desk, developing network use policies, developing network recovery procedures. Labs will require that students manage an operational network that provides typical network services and experience the day-to-day problems that network administrators encounter.
Prerequisite: ITE 382 Minimum Grade of C and ITE 384 Minimum Grade of C

ITE 485 ITE Senior Demo Project 3 cr
A senior capstone individual project course working from problem requirements and specifications to produce a solution. This requires exploration of suitable information technologies to produce a solution that improves the problem situation. Students will analyze, plan, and report on the project and implement a prototype. Prerequisites: ITE 370 Minimum Grade of C, ITE 480 Minimum Grade of C, and permission of the ITE coordinator.
Prerequisite: ITE 370 Minimum Grade of C and ITE 480 Minimum Grade of C

ITE 490 Special Topics 3 cr
Advanced selected topics in information technology. Prerequisite: Permission of the ITE coordinator.

Faculty

Faculty Name	Faculty Department	Faculty Position	Degrees Held
BENTLEY, JOHN F. (jbentley@southalabama.edu)	Information & Systems Tech	Instructor	BA, Berry College DVM, Auburn University MS, Auburn University MS, University of South Alabama
BLACK, MICHAEL EUGENE (mblack@southalabama.edu)	Information & Systems Tech	Associate Professor	BS, University of South Alabama MS, University of South Alabama PHD, Capella University
BOURRIE, DAVID M (dbourrie@southalabama.edu)	Information & Systems Tech	Associate Professor	BA, Michigan State University PHD, Auburn University
CALLEGARI, CHAD BENJAMIN (ccallegari@southalabama.edu)	Information & Systems Tech	Instructor	BS, University of South Alabama MS, University of South Alabama
CAMPBELL, AMY ASHE (amycampbell@southalabama.edu)	Information & Systems Tech	Assistant Professor	BSN, Tennessee Technological U MSN, University of South Alabama DNP, University of South Alabama
CAMPBELL, STEPHEN MATTHEW (mattcampbell@southalabama.edu)	Information & Systems Tech	Associate Professor	BS, Tennessee Technological U MBA, Tennessee Technological U PHD, University of NC- Charlotte
CHAPMAN, DEBRA LAIER (dchapman@southalabama.edu)	Information & Systems Tech	Assistant Professor	BS, University of Southern Miss MS, University of South Alabama PHD, University of Southern Miss
CLARK, ANGELA MONTGOMERY (amclark@southalabama.edu)	Information & Systems Tech	Senior Instructor	BS, University of South Alabama MS, University of South Alabama
COBB, DAVID ANDREW (dacobb@southalabama.edu)	Information & Systems Tech	Instructor	AH, Remington College BS, University of South Alabama MS, University of South Alabama
GREEN, RICKY ELDON (rgreen@southalabama.edu)	Information & Systems Tech	Senior Instructor	BSITE, University of South Alabama MSCIS, University of South Alabama
KIBBY, HANNAH VICTORIA (kibby@southalabama.edu)	Information & Systems Tech	Assistant Professor	BS, University of South Alabama MS, University of South Alabama PHD, University of South Alabama
OVERSTREET, PAUL R. (poverstreet@southalabama.edu)	Information & Systems Tech	Instructor	BS, University of Alabama MS, University of Alabama
ROBINSON, OCLLO PARKS (orobinson@southalabama.edu)	Information & Systems Tech	Senior Instructor	BS, Auburn University MS, University of South Alabama
SHROPSHIRE, JORDAN D. (jshropshire@southalabama.edu)	Information & Systems Tech	Professor	BBA, University of Florida PHD, Mississippi State University

VAN DEVENDER, MAUREEN STAKELUM (mvandevender@southalabama.edu)	Information & Systems Tech	Senior Instructor	BS, University of South Alabama MBA, Spring Hill College PHD, University of South Alabama
WANG, HONG (wwang@southalabama.edu)	Information & Systems Tech	Assistant Professor	MS, University of Mississippi PHD, University of Mississippi