COMPUTER AND INFORMATION TECHNOLOGIES

This program includes tracks in Business Software and Support, Cloud Computing Technologies, General, Geospatial Technologies, Informatics, Information Security, Internet Technologies, Network Administration, Network Technologies, Programming, and Video Game Design, with a core of courses common to all. The core includes a general education component essential to a collegiate education and a technical component giving students an introduction to information systems, computer applications, program development, system maintenance, networking, security, database design, and collaborative system development. In addition to core courses, students take specialty courses for their selected track.

- Students graduating with a degree or certificate in Computer & Information Technologies may only use CIT courses with a grade of "C" or higher (or a "Pass" for Pass/Fail courses) to fulfill CIT course prerequisites and core or track graduation requirements.
- The Computer & Information Technologies department does not accept non-General Education courses older than 5 years from returning or transfer students without consent from the local program coordinator.
- Students may not use one course to fulfill multiple requirements.

Computer and Information Technologies AAS Tracks:

Business Software and Support Track

The Business Software and Support Track emphasizes several aspects of application software. It includes such productivity applications as: word processing, spreadsheets, database management, presentation, geographic information systems, website development/maintenance, and help desk tracking systems. Completion of this track will prepare students to work with computer-based systems in business and industry.

Business Software Specialist - Designed to train students to operate a wide variety of software packages and to assist businesses in developing and maintain databases, producing financial statements, and developing applications using various software packages.

Computer Applications Support - Provides an in-depth knowledge of application software, computer system configurations, Help Desk Tools/Software, end-user documentation, user training, and other user support skills.

Software Support - Provides an in-depth knowledge of application software, computer system configurations, and data driven websites.

Cloud Computing Technologies Track

The Cloud Computing Technologies Track covers the fundamentals of building IT infrastructure using cloud-based technologies. The track is designed to teach future cloud technologists how to optimize the use of cloud-based services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this track emphasizes best practices for cloud technologies, and it recommends various design patterns to help students think through the process of architecting optimal IT cloud-based solutions.

Within the Cloud Computing Technologies Track there is an Amazon Web Services (AWS) course sequence that is designed to prepare students to pass the AWS Cloud Practitioner Certification Exam and the AWS Cloud Architect Certification Exam.

The Cloud Computing Technologies track also includes a course sequence in Data Center Technology. This track provides experience in areas such as virtualization, storage, security, high availability and adherence to standards in provisioning of computing resources that meet business and organizational needs. The Data Center sequence can be used to prepare students for entry level positions in organizations that design and manage data centers.

General Track

The General Track will give students the basic concepts in computer hardware and software, databases, programming, security, networking and upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. This degree plan will offer maximum flexibility by providing students with a range of options for program specialization with the knowledge and skills sufficient to be employable and successful in a variety of professional computing areas. Possible employment opportunities may include but are not limited to areas such as cloud computing, virtualization, programming and application development, network and system administration, and other new and innovative developments in Information Technology for both small and large organizations.

Geospatial Technologies Track

The Geospatial Technologies Track (GST), is a rapidly growing and evolving field which enables users of location based data the ability to make informed decisions, utilizing a large array of sensors and demographics. GST utilizes both time and place as analysis factors and is recognized by the U.S. Department of Labor (DoL) as a high growth, high wage, green industry with a bright outlook. The curriculum is based upon national standards, including the DoL Geospatial Technology Competency Model (GTCM) and the NSF funded GeoTech Center model courses. Completers of the Associate of Applied Science degree will have the skills for employment in GST or associated fields such as Unmanned Aircraft System, agriculture, remote sensing, geospatial intelligence, environmental science, crime analysis, and/or demographics.

Informatics Track

The Informatics Track prepares students interested in an advanced study of database design/management and computer programming. The curriculum may also be used to prepare students for entry into bachelor-level programs in computer science and informatics.

Information Security Track

The Information Security Track will provide a solid background in information security. Fundamentals of information security, offensive and defensive techniques, and security topics such as operating system security, network security design, or other security topics are covered. This track will help prepare students for entry-level positions of network security, auditing and penetration testing, firewall configuration, and computer crime investigation.

Internet Technologies Track

The Internet Technologies Track prepares students to design, program, and maintain Internet-based services. With specializations in web

programming and web server administration, this track will help prepare students for positions developing and maintaining interactive web sites.

Network Administration Track

The Network Administration Track provides the concepts and skills needed to design, set-up, maintain and expand network and telecommunications systems. The curriculum provides specific training in Cisco, and/or Microsoft network systems. Upon completion of the track, the graduate will be qualified to take industry designed and recognized certification examinations. Employment opportunities include entry-level positions in installation and administration of local and wide area networks in medium to large businesses and organizations, and computer network administration positions in small businesses.

Network Technologies Track

The Network Technologies Track provides the concepts and skills needed to set up, maintain, and expand networked computer systems. This track requires sequences in Microsoft Windows, Cisco, and UNIX/Linux as well as courses providing deeper insight into Internet protocols and network security. Employment opportunities include entry-level positions in installation and administration of local area networks in medium to large organizations and as computer network administrators in small businesses.

Programming Track

The Programming Track prepares students to design, develop, and maintain computer programs written in current and emerging programming languages. With tracks in Information Systems and Software Development, students successfully completing this track are prepared for entry-level positions in computer programming.

Video Game Design Track

The Video Game Design Track prepares students to design, develop, and market digital games and simulations. This track focuses on game development with an emphasis on game programming.

Certificates:

A+ Prep Certificate

The A+ Prep Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer hardware and software. The certificate consists of one course that prepares students for the CompTIA A+ certification exams which are recognized by the computer industry around the world. The certificate gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of proficiency.

Application Support Technician Certificate

The Application Support Technician Certificate offers students the opportunity to earn a credential demonstrating application support technician competencies. The certificate consists of the core skills that students need for computer and end-user support. In addition, this certificate will provide a way for professionals currently in the industry to update their application support technician skills and for new students to show progress in the CIT program.

AWS Cloud Architecting Certificate

The AWS Cloud Architecting Certificate covers the fundamentals of building IT infrastructure on Amazon Web Services, or AWS. The certificate is designed to teach future solutions architects how to optimize the use of the AWS Cloud by understanding AWS services and how these services fit into cloud-based solutions. Because architectural solutions can differ depending on industry, type of applications, and size of business, this certificate emphasizes best practices for the AWS Cloud, and it recommends various design patterns to help students think through the process of architecting optimal IT solutions on AWS.

Cisco Networking Certificate

The Cisco Networking Associate Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Cisco Networking Associate Certificate prepares students for the CCNA exam which is recognized by the computer industry around the world.

Cisco Networking Enhanced Certificate

The Cisco Networking Enhanced Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Cisco Networking Associate Certificate prepares students for the CCNA and Net+ exams which are recognized by the computer industry around the world.

CIT Fundamentals Certificate

The CIT Fundamentals Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computers. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency.

Computer Tech Basic Certificate

The Computer Tech Basic Certificate offers students the opportunity to earn a credential demonstrating basic competency in the area of computer information technology. The certificate consists of a natural progression of classes that are required for the Associate in Applied Science degree in Computer & Information Technologies. It gives those who are unable, or do not need, to complete a degree a way of demonstrating their level of computer proficiency. The Computer Tech Basic Certificate prepares students for the CompTIA A+ and Net + certification exams which are recognized by the computer industry around the world.

Computer Technician Certificate

The Computer Technician Certificate offers students the opportunity to earn a credential demonstrating computer technician competencies. This certificate consists of the core skills that students need to achieve the industry A+ and Security+ certifications. In addition, this certificate will provide a way for professionals currently in the industry to update their technician skills and for new students to show progress in the CIT program.

Digital Forensics Specialist Certificate

The Digital Forensics Specialist Certificate offers students the opportunity to earn a credential demonstrating skills in digital forensics.

Digital forensics covers the retrieval and investigation of material found in digital devices. Digital material refers to all methods of electronic data storage and transfer devices, including computers, laptops, cell phones, tablets, gaming consoles, and portable storage devices. The goal of digital forensics is to ensure the integrity of that digital material while thoroughly examining it. Digital forensics requires in-depth knowledge of the understanding of the legal as well as the technical aspects of cyber-crime. This certificate consists of the core skills that students need to demonstrate basic digital forensic skills. It provides an introduction to information security and incident response, forensic preparation and data recovery and analysis. The goals of this certificate focus on the principles and techniques used to identify, search, seize and analyze digital media, and to conduct cyber investigations. In addition, this certificate will provide a way for professionals currently in the industry to update their digital forensic skills and for new students to show progress in the CIT program.

Informatics Advanced Certificate

The Informatics Advanced Certificate builds on the Informatics Generalist certificate for those in the workforce looking to gain deeper knowledge about informatics structure and analysis. It will prepare them to work with collaboration software, such as SharePoint, and will work with database programming and mining.

Informatics Generalist Certificate

The Informatics Generalist Certificate is for students in the workforce looking to gain knowledge about informatics. It will prepare them to use and understand existing software and will introduce them to data analysis and how it can be used.

Informatics Programming Certificate

The Informatics Programming Certificate offers students the opportunity to earn a credential demonstrating informatics programming competencies. It consists of core abilities that students need to design well-structured databases and effectively develop secure applications using an object-oriented programming language to interface with databases.

Information Security Specialist Certificate

The Information Security Specialist Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their information security skills and for new students to show progress in the CIT program.

Microsoft Enterprise Administrator Certificate

The Microsoft Enterprise Administrator certificate offers students the opportunity to earn a credential demonstrating skills in the administration and design of Microsoft enterprise networks. This certificate consists of the core skills that students need to effectively plan, build, and maintain a Microsoft network. In addition, this certificate will provide a way for professionals currently in the industry to update their Microsoft network administrator skills.

Microsoft Network Administrator Certificate

The Microsoft Network Administrator Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program.

Mobile Apps Developer Certificate

The Mobile Apps Developer Certificate offers students the opportunity to earn a credential demonstrating mobile apps development competencies. This certificate consists of the core skills that students need to effectively develop mobile apps. It provides a way for professionals currently in the industry to update their mobile app development skills and for new students to show progress in the CIT program.

Net+ Prep Certificate

The Net+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of computer networking. This certificate consists of the core skills that students need to effectively build and maintain computer networks. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Net+ Prep Certificate prepares students for the CompTIA Net+ exam which is recognized by the computer industry around the world.

Network Technologies Specialist Certificate

The Network Technologies Specialist Certificate offers students the opportunity to earn a credential demonstrating network technology competencies. This certificate consists of specialized networking classes that students need to effectively configure and maintain networks using network technologies specialist skills. In addition, this certificate will provide a way for professionals currently in the industry to update their network technologies specialist skills.

Productivity Software Specialist Certificate

The Productivity Software Specialist Certificate offers students the opportunity to earn a credential demonstrating productivity software competencies. This certificate consists of the core skills that students need to effectively use various productivity software products. In addition, this certificate will provide a way for professionals currently in the industry to update their productivity software skills and for new students to show progress in the CIT program.

Programmer Certificate

The Programmer Certificate offers students the opportunity to earn a credential demonstrating programming competencies. This certificate consists of the core skills that students need to effectively develop programs using multiple computer languages. In addition, this certificate will provide a way for professionals currently in the industry to update their programming skills and for new students to show progress in the CIT program.

Residential Fiber Optic Technician

The Residential Fiber Optic Technician certificate offers students the opportunity to earn a credential demonstrating installation and troubleshooting in a fiber to the home setting. This certificate consists of skills needed for fiber to the home installations including fiber optic terminations, safety, and fusion splicing as well as basic computer and network configuration and troubleshooting skills. Additionally, students will be exposed to basic electrical concepts and complete an internship in the field.

Security+ Prep Certificate

The Security+ Prep Certificate offers students the opportunity to earn a credential demonstrating the fundamentals of information security. This certificate consists of the core skills that students need to effectively build and maintain information security systems. In addition, this certificate will provide a way for professionals currently in the industry to update their computer networking skills and for new students to show progress in the CIT program. The Security+ Prep Certificate prepares students for the CompTIA Security+ exam which is recognized by the computer industry around the world.

Social Media Specialist Certificate

The Social Media Specialist Certificate prepares students for careers as social media analysts to leverage social media tools to increase business awareness and presence.

UNIX/Linux Administrator certificate

The UNIX/Linux Administrator certificate offers students the opportunity to certify proficiency using UNIX/Linux. This certificate consists of specialized UNIX/Linux courses that students need to effectively configure and maintain networks using the UNIX or Linux operating systems. In addition this certificate will provide a way for professionals currently in the industry to update their UNIX/Linux specialist skills.

Video Game Designer Certificate

The Video Game Designer Certificate prepares students to design, develop, and market digital games and simulations.

Web Server Administrator Certificate

The Web Server Administrator Certificate offers students the opportunity to earn a credential demonstrating web administration competencies. This certificate consists of the core skills that students need to effectively maintain web sites through network and web server administration. In addition, this certificate will provide a way for professionals currently in the industry to update their web administration skills and for new students to show progress in the CIT program.

Web Programmer Certificate

The Web Programmer Certificate offers students the opportunity to earn a credential demonstrating web programming competencies. This certificate consists of the core skills that students need to effectively develop websites using web programming. In addition, this certificate will provide a way for professionals currently in the industry to update their web programming skills and for new students to show progress in the CIT program.

Degree

- Computer and Information Technologies - AAS (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/)
  - Business Software and Support Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#businesssoftwareandsupporttrack)
  - Cloud Computing Technologies Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#cloudcomputingtechnologiestrack)
  - General Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#generaltrack)
  - Geospatial Technologies Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#geospatialtechnologiestrack)
  - Informatics Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#informaticstrack)
  - Information Security Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#informationsecuritytrack)
  - Internet Technologies Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#internettechnologiestrack)
  - Network Administration Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#networkadministrationtrack)
  - Network Technologies Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#networktechnologiestrack)
  - Programming Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#programmingtrack)
  - Video Game Design Track (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-information-technologies-aas/#videogamedesigntrack)

Certificates

- A+ Prep - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/a-prep-certificate/)
- Application Support Technician - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/application-support-technician-certificate/)
- AWS Cloud Architecting - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/aws-cloud-architecting-certificate/)
- Cisco Networking - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/cisco-networking-certificate/)
- Cisco Networking Enhanced - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/cisco-networking-enhanced-certificate/)
- CIT Fundamentals - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/cit-fundamentals-certificate/)
- Computer Tech Basic - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-tech-basic-certificate/)
- Computer Technician - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/computer-technician-certificate/)
- Digital Forensics Specialist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/digital-forensics-specialist-certificate/)

- Informatics Advanced - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/informatics-advanced-certificate/)
- Informatics Generalist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/informatics-generalist-certificate/)
- Informatics Programming - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/informatics-programming-certificate/)
- Information Security Specialist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/information-security-specialist-certificate/)
- Microsoft Enterprise Administrator - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/microsoft-enterprise-administrator-certificate/)
- Microsoft Network Administrator - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/microsoft-network-administrator-certificate/)
- Mobile Apps Developer - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/mobile-apps-developer-certificate/)
- Net+ Prep - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/net-prep-certificate/)
- Network Technologies Specialist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/network-technologies-specialist-certificate/)
- Productivity Software Specialist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/productivity-software-specialist-certificate/)
- Programmer - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/programmer-certificate/)
- Residential Fiber Optic Technician - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/residential-fiber-optic-technician-certificate/)
- Security+ Prep - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/security-prep-certificate/)
- Social Media Specialist - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/social-media-specialist-certificate/)
- Unix/Linux Administrator - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/unix-linux-administrator/)
- Video Game Designer - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/video-game-designer-certificate/)
- Web Programmer - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/web-programmer-certificate/)
- Web Server Administrator - Certificate (https://catalog.kctcs.edu/programs-of-study/aas/computer-information-technologies/web-server-administrator-certificate/)

Course Choice Lists

Approved Business Courses*

Course	Title	Credits
ACC 201	Financial Accounting	3
ACT 101	Fundamentals of Accounting I	3
BAS 160	Introduction to Business	3
IFM 111	Client-side Informatics Software	3
IFM 128	Principles of Informatics	3
IFM 211	Collaboration Software	3
IFM 215	Information Systems Analysis	3
IFM 225	Advanced Informatics	3

Approved CIT Capstone Courses*

Course	Title	Credits
CIT 290	Internship	3
CIT 291	CIT Capstone	3
CIT 293	CIT Employability Studies	1
CIT 297	CIT Professional Preparation	3

Approved Cloud Computing Elective Courses*

Course	Title	Credits
Approved Management Course		3
CIT 155	Web Page Development	3
CIT 157	Web Site Design and Production	3
CIT 171	SQL I	3
CIT 201	Information Storage Management	3
CIT 208	AWS Systems Operations	3
CIT 228	Advanced UNIX/Linux Administration	3
CIT 279	Configuring Windows Server Hybrid Advanced Services	3
Approved Level I Programming Language Course		3
Approved Level II Programming Language Course		3
Approved Security Course		3

Approved General Track Elective Courses*

Course	Title	Credits
CIT 167	Switching & Routing Essentials	4
CIT 182	Perimeter Defense	3
CIT 184	Attacks and Exploits	3
Any 200-level CIT course		
Any 200-level CS Courses		

Approved Management Courses*

Course	Title	Credits
BAS 200	Small Business Management	3
BAS 201	Customer Service Improvement Skills	3
BAS 274	Human Resource Management	3
BAS 283	Principles of Management	3
BAS 287	Supervisory Management	3
BAS 288	Personal and Organizational Leadership	3
MFG 256	Production Management	3
OST 275	Office Management	3

QMS 101	Introduction to Quality Systems	3
Any management course approved by CIT Program Coordinator		3

Approved Level I Networking Courses*

Course	Title	Credits
CIT 160	Intro to Networking Concepts	4
CIT 161	Introduction to Networks	4

Approved Network Elective Courses*

Course	Title	Credits
CIT 167	Switching & Routing Essentials	4
CIT 212	Connecting and Scaling Networks	4
CIT 219	Internet Protocols	3
CIT 228	Advanced UNIX/Linux Administration	3
CIT 260	Network Hardware Installation and Troubleshooting	3
CIT 267	UNIX/Linux Network Services	3
CIT 270	Microsoft 365 Endpoint Administration [1]	3
CIT 275	Administering Windows Server Hybrid Core Infrastructure	3
CIT 279	Configuring Windows Server Hybrid Advanced Services	3
Other Microsoft networking courses as approved by the CIT Program Coordinator		3

[1] Course for the Information Security Track only.

Approved Security Elective Courses*

Course	Title	Credits
CIT 284	Computer Forensics	3
CIT 285		3
CIT 286	UNIX/Linux OS Security	3
CIT 287	Cisco OS Security	3
CIT 288	Network Security	3

Approved Level I Programming Language Courses*

Course	Title	Credits
CIT 140	JavaScript I	3
CIT 141		3
CIT 142	C++ I	3
CIT 143	C# I	3
CIT 144	Python I	3
CIT 145		3
CIT 146	Swift I	3
CIT 147		3
CIT 148	Visual Basic I	3
CIT 149	Java I	3
CIT 171	SQL I	3
University Level I programming Languages as approved by local Program Coordinator		3-4

Approved Level II Programming Language Courses*

Course	Title	Credits
CIT 237	iOS Programming	3
CIT 238	Android Programming I	3
CIT 241		3
CIT 242	C++ II	3
CIT 243	C# II	3
CIT 244	Python II	3
CIT 247		3
CIT 248	Visual Basic II	3
CIT 249	Java II	3
CIT 271	SQL II	3
University Level II programming Languages as approved by local Program Coordinator		3-4

Approved Level III Programming Language Courses*

Course	Title	Credits
CIT 277		3
CIT 278		3
University Level III programming Languages as approved by local Program Coordinator		3-4

Approved Level I Web Programming Language Courses

Course	Title	Credits
CIT 141		3
CIT 144	Python I	3
CIT 148	Visual Basic I	3
CIT 149	Java I	3

Approved Level II Web Programming Language Courses*

Course	Title	Credits
CIT 241		3
CIT 244	Python II	3
CIT 248	Visual Basic II	3
CIT 249	Java II	3

Approved Social Media Courses*

Course	Title	Credits
CIT 151	Social Media I	3
CIT 152	Social Media Tools and Technologies	3
CIT 251	Social Media II	3

Video Game Design Electives*

Course	Title	Credits
CIT 238	Android Programming I	3
Approved Level II Programming Language		3

Approved CIT Technical Courses*

Course	Title	Credits
CIT courses not taken to satisfy a Technical Core requirement or a specific track requirements		3

Approved Non-CIT Technical Elective Courses

Course	Title	Credits
EET 133	Fiber Optics Systems	3

* Or other courses approved by Computer & Information Technologies Program Coordinator.

Note: Students may not use one course to fulfill multiple requirements.

Students may choose CIT 290 (https://catalog.kctcs.edu/search/?P=CIT%20290) Internship (3 credit hours) or COE 199 (https://catalog.kctcs.edu/search/?P=COE%20199) Cooperative Education: (Topic) (1-8 credit hours) for a maximum of 3 credit hours.