

Department of

# Computer Information Technology



*Steven Rigby, Department Chair*

*Bradley Armstrong, Lee Barney, Rex Barzee, Art Ericson, Kory Godfrey, Kent Jackson, Michael McLaughlin, Mark Olaveson, Steven Rigby, Blaine Robertson, Randy Somsen, Amy Staiger, Secretary (208) 496-3620  
<http://www.byui.edu/CIT/>*

## Introduction to Computer Information Technology

Take a look at Computer Information Technology (CIT). It includes the design, development and management of systems within an organization to solve real world problems. A world of opportunity awaits you.

A career in CIT allows you to create solutions for real problems that effect real people. As you help solve these problems with your team, you may be creating new and exciting solutions that change the everyday lives of individuals. You will be making a real difference that impacts the growth and success of an organization.

There is high demand for BYU-Idaho CIT graduates all over the world in all segments of the economy in both small and large companies. Careers in IT pay higher than average salaries. You can work in major financial, accounting, agriculture, manufacturing, medicine, retailing, or software companies, in education or government agencies, or for non-profit organizations.

Your career in CIT can be very dynamic. New challenges and opportunities await you every day. Working in a team, you will interact cooperatively with the management, customers, clients, and other information technology professionals to determine what the solution needs to do, what it needs to look like and how it should work. One day you may be meeting with customers and clients, the next designing software and the next designing a database. The day after that you may be involved in designing a complex network to allow your organization to communicate more effectively using the web, mobile devices, and computers. The next day you may be setting up a clustered set of web servers. CIT is a very interactive and interesting career to work in.

A minimum GPA of 1.7 (C-) is required in all major courses to graduate.

**BS in Computer Information Technology (681)**

Take required Foundations courses

**Major Requirements**

*No Double Counting of Major Courses - No Grade Less Than C- in Major Courses*

CIT Core <i>Take these courses:</i>	CIT Electives <i>Take 2 courses:</i>	CIT Capstone <i>Take 1 course:</i>	<i>Program Notes:</i>
CIT 160           3	CIT 261           3	CIT 490           3	
CIT 225           3	CIT 336           3	CIT 498 <u>3</u>	
CIT 230           3	CIT 341           3	3	
CIT 240           3	CIT 345           3		
CIT 241           3	CIT 381           3	and	
CIT 260           3	CIT 425           3	<i>Take this course:</i>	
CIT 262           3	CIT 460           3	CIT 495 <u>1</u>	
CIT 325           3	CIT 465           3	1	
CIT 352           3	CIT 470           3		
CIT 353           3	CIT 485 <u>3</u>		
CIT 360           3	6		
CIT 370           3			
CIT 380 <u>3</u>			
39			

**Total Major Credits=49**

**Additional Elective Credits Required for Graduation=31**

This major is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

## BS in Information Systems (684)

Take required Foundations courses

### Major Requirements

*No Double Counting of Major Courses - No Grade Less Than C- in Major Courses*

Information Systems Core Courses	Information Systems Options																																																																																																																																																																							
	Choose a secondary emphasis from the following. All listed have been pre-approved.																																																																																																																																																																							
<p><b>Take these courses:</b></p> <table border="0"> <tr><td>CIT 111</td><td>3</td></tr> <tr><td>CIT 160</td><td>3</td></tr> <tr><td>CIT 230</td><td>3</td></tr> <tr><td>CIT 240</td><td>3</td></tr> <tr><td>CIT 260</td><td>3</td></tr> <tr><td>CIT 262</td><td>3</td></tr> <tr><td>CIT 336</td><td>3</td></tr> <tr><td>CIT 352</td><td>3</td></tr> <tr><td>CIT 370</td><td>3</td></tr> <tr><td>CIT 380</td><td>3</td></tr> <tr><td>CIT 381</td><td>3</td></tr> <tr><td>CIT 425</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>36</td></tr> </table> <p><b>Information Systems Capstone</b></p> <p><i>Take 1 course:</i></p> <table border="0"> <tr><td>CIT 490</td><td>3</td></tr> <tr><td>CIT 498</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>3</td></tr> </table> <p><b>Research</b></p> <p><i>Take this course:</i></p> <table border="0"> <tr><td>CIT 495</td><td>1</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>1</td></tr> </table>	CIT 111	3	CIT 160	3	CIT 230	3	CIT 240	3	CIT 260	3	CIT 262	3	CIT 336	3	CIT 352	3	CIT 370	3	CIT 380	3	CIT 381	3	CIT 425	3		<hr/>		36	CIT 490	3	CIT 498	3		<hr/>		3	CIT 495	1		<hr/>		1	<p><b>Accounting Information Systems (2001)</b></p> <p><i>Take these courses:</i></p> <table border="0"> <tr><td>ACCTG 201</td><td>3</td></tr> <tr><td>ACCTG 202</td><td>3</td></tr> <tr><td>ACCTG 333</td><td>3</td></tr> <tr><td>ACCTG 356</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>12</td></tr> </table> <p><b>Biotechnology/Forensics (1106)</b></p> <p><i>Take these courses:</i></p> <table border="0"> <tr><td>BIO 180</td><td>4</td></tr> <tr><td>BIO 375</td><td>3</td></tr> <tr><td>BIO 377</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>10</td></tr> </table> <p><i>Take 1 course:</i></p> <table border="0"> <tr><td>BIO 376</td><td>3</td></tr> <tr><td>CHEM 481</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>3</td></tr> </table>	ACCTG 201	3	ACCTG 202	3	ACCTG 333	3	ACCTG 356	3		<hr/>		12	BIO 180	4	BIO 375	3	BIO 377	3		<hr/>		10	BIO 376	3	CHEM 481	3		<hr/>		3	<p><b>Health Professions (1107)</b></p> <p><i>Take 12 credits:</i></p> <table border="0"> <tr><td>BIO 180</td><td>4</td></tr> <tr><td>BIO 181</td><td>4</td></tr> <tr><td>BIO 221</td><td>3</td></tr> <tr><td>BIO 222</td><td>1</td></tr> <tr><td>BIO 321</td><td>4</td></tr> <tr><td>CHEM 105</td><td>4</td></tr> <tr><td>CHEM 106</td><td>4</td></tr> <tr><td>CHEM 351</td><td>4</td></tr> <tr><td>CHEM 352</td><td>4</td></tr> <tr><td>PH 105</td><td>4</td></tr> <tr><td>PH 106</td><td>4</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>12</td></tr> </table> <p><b>GIS in Agriculture and Natural Resources (1008)</b></p> <p><i>Take these courses:</i></p> <table border="0"> <tr><td>AGTEC 286</td><td>3</td></tr> <tr><td>AGTEC 474</td><td>3</td></tr> <tr><td>AGTEC 486</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>9</td></tr> </table> <p><i>Take 1 course:</i></p> <table border="0"> <tr><td>CIT 225</td><td>3</td></tr> <tr><td>GEOG 240</td><td>3</td></tr> <tr><td>GEOG 340</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>3</td></tr> </table>	BIO 180	4	BIO 181	4	BIO 221	3	BIO 222	1	BIO 321	4	CHEM 105	4	CHEM 106	4	CHEM 351	4	CHEM 352	4	PH 105	4	PH 106	4		<hr/>		12	AGTEC 286	3	AGTEC 474	3	AGTEC 486	3		<hr/>		9	CIT 225	3	GEOG 240	3	GEOG 340	3		<hr/>		3	<p><b>Geographic Information Systems (4001)</b></p> <p><i>Take these courses:</i></p> <table border="0"> <tr><td>CIT 225</td><td>3</td></tr> <tr><td>GEOG 240</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>6</td></tr> </table> <p><i>Take 3 courses</i></p> <table border="0"> <tr><td>AGTEC 286</td><td>3</td></tr> <tr><td>GEOG 230</td><td>3</td></tr> <tr><td>GEOG 340</td><td>3</td></tr> <tr><td>GEOL 440R</td><td>3</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>9</td></tr> </table>	CIT 225	3	GEOG 240	3		<hr/>		6	AGTEC 286	3	GEOG 230	3	GEOG 340	3	GEOL 440R	3		<hr/>		9	<p><b>Chemistry (6500)</b></p> <p><i>Take 12 credits:</i></p> <table border="0"> <tr><td>CHEM 105</td><td>4</td></tr> <tr><td>CHEM 106</td><td>4</td></tr> <tr><td>CHEM 150*</td><td>5</td></tr> <tr><td>CHEM 220</td><td>5</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>12</td></tr> </table> <p>OR</p> <p><i>Take 12 credits:</i></p> <table border="0"> <tr><td>CHEM 105</td><td>4</td></tr> <tr><td>CHEM 106</td><td>4</td></tr> <tr><td>CHEM 220</td><td>5</td></tr> <tr><td>CHEM 351*</td><td>4</td></tr> <tr><td>CHEM 352*</td><td>4</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>12</td></tr> </table> <p><small>*Chem 150 can't count with Chem 351 and/or 352.</small></p>	CHEM 105	4	CHEM 106	4	CHEM 150*	5	CHEM 220	5		<hr/>		12	CHEM 105	4	CHEM 106	4	CHEM 220	5	CHEM 351*	4	CHEM 352*	4		<hr/>		12
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*Program Notes:*

**Total Major Credits=52**

**Additional Elective Credits Required for Graduation=28**

This major is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

## Computer Information Systems Concentration (D 122)

### Concentration Requirements

*No Double Counting of Concentration Courses - No Grade Less Than C- for Minor Courses*

<p><b>Required Courses</b></p> <p><i>Take these courses:</i></p> <table border="0"> <tr><td>CIT 110</td><td>3</td></tr> <tr><td>CIT 111</td><td>3</td></tr> <tr><td>CIT 160</td><td>3</td></tr> <tr><td>CIT 230</td><td>3</td></tr> <tr><td>CIT 240</td><td>3</td></tr> <tr><td>CIT 261</td><td>3</td></tr> <tr><td>CIT 336</td><td>3</td></tr> <tr><td>CIT 370</td><td>3</td></tr> <tr><td>CIT 380</td><td>3</td></tr> <tr><td>CIT 381</td><td>3</td></tr> <tr><td>IDS 398R</td><td>1-3</td></tr> <tr><td>IDS 499</td><td>2</td></tr> <tr><td></td><td><hr/></td></tr> <tr><td></td><td>33</td></tr> </table>	CIT 110	3	CIT 111	3	CIT 160	3	CIT 230	3	CIT 240	3	CIT 261	3	CIT 336	3	CIT 370	3	CIT 380	3	CIT 381	3	IDS 398R	1-3	IDS 499	2		<hr/>		33	<p><i>Program Notes:</i></p>
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**Total Concentration Credits=33**

This concentration is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

## Minor in Computer Information Technology (202)

### Minor Requirements

*No Double Counting of Minor Courses - No Grade Less Than C- for Minor Courses*

<b>Required Courses</b> <i>Take these courses:</i> CIT 111            3 CIT 160            3 CIT 230            3 CIT 240            3 CIT 260            3 CIT 380            3 <hr/> 18	<b>Elective Courses</b> <i>Take 2 courses:</i> CIT 225            3 CIT 241            3 CIT 262            3 CIT 336            3 CIT 341            3 CIT 352            3 CIT 353            3 CIT 360            3 CIT 370            3 CIT 381            3 CIT 425            3 CIT 465            3 CIT 470            3 CIT 485            3 <hr/> 6	<b>Program Notes:</b>  No double counting of minor courses.
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**Total Minor Credits=24**

This minor is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

## Minor in Information Systems (241)

### Minor Requirements

*No Double Counting of Minor Courses - No Grade Less Than C- for Minor Courses*

<b>Required Courses</b> <i>Take these courses:</i> CIT 111            3 CIT 160            3 CIT 230            3 CIT 260            3 CIT 370            3 CIT 380            3 CIT 381            3 CIT 425            3 <hr/> 24	<b>Program Notes:</b>
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**Total Minor Credits=24**

This minor is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

## Information Systems Certificate (C 108)

### Certificate Requirements

*No Grade Less Than C- for Certificate Courses*

<i>Take 5 courses:</i>	
CIT 110	3
CIT 111	3
CIT 160	3
CIT 230	3
CIT 240	3
CIT 260	3
	<hr/> 15

*Program Notes:*

**Total Certificate Credits=15**

This certificate is available on the following tracks:

Fall-Winter---- YES

Winter-Spring---- YES

Spring-Fall---- YES

### Computer Information Technology Pre-approved Clusters

<b>Generic CIT</b>	<b>2500</b>
<i>Take these courses:</i>	
CIT 160	3
CIT 230	3
CIT 240	3
CIT 336	3
<b>Total Credits</b>	<b>12</b>
<b>Programming</b>	<b>2501</b>
<i>Take these courses:</i>	
CIT 111	3
CIT 160	3
CIT 260	3
CIT 261	3
<b>Total Credits</b>	<b>12</b>
<b>Networking</b>	<b>2502</b>
<i>Take these courses:</i>	
CIT 240	3
CIT 241	3
CIT 353	3
CIT 370	3
<b>Total Credits</b>	<b>12</b>

<b>Web</b>	<b>2503</b>
<i>Take these courses:</i>	
CIT 111	3
CIT 230	3
CIT 336	3
<i>Take 1 course:</i>	
COMM 130	3
CS 371	3
<b>Total Credits</b>	<b>12</b>
<b>Project Lifecycle</b>	<b>2504</b>
<i>Take these courses:</i>	
CIT 111	3
CIT 160	3
CIT 380	3
CIT 485	3
<b>Total Credits</b>	<b>12</b>
<b>CIT/ACCOUNTING</b>	<b>2505</b>
<i>Take these courses:</i>	
ACCTG 333	3
ACCTG 356	3
CIT 111	3
CIT 160	3
<b>Total Credits</b>	<b>12</b>

# Computer Information Technology

Brigham Young University–Idaho 2012-2013

## Course Descriptions

## Credits\*

- CIT 110 Introduction to Excel (3:3:0)**  
Introduction to the use of spreadsheets in business. Emphasis is on learning spreadsheet literacy concepts and a popular spreadsheet application to solve business problems. (Fall, Winter, Spring)
- CIT 111 Introduction to Databases (3:3:0)**  
This course covers the basic elements of database management systems. It introduces students to the concepts of logical and physical relationships in a data model and the concepts of inner and outer joins. Students will use a computer aided software engineering (CASE) tool to design, create, and query a database. (Fall, Winter, Spring)
- CIT 160 Introduction to Programming (3:3:0)**  
An introduction to the basic concepts of computers and information technology. Students will learn the basics of computer hardware and the binary and hexadecimal number systems. Students will design algorithms to solve simple computing problems and will write computer programs using Boolean logic, control structures, and functions. Students will read and draw UML use case and class diagrams and will learn basic set and join theory. (Fall, Winter, Spring)
- CIT 225 Database Design and Development (3:3:0)**  
Prerequisites: CIT 160; CS 124  
This course covers the physical and logical design elements of relational and object-relational databases, including the definition of and organization of structures into a database catalog. It explores symbolic drawing methodologies, like Information Engineering and UML. It teaches SQL language semantics, including DDL, DML and DQL structures. It exposes students to database configuration and tuning. It demonstrates and explores using external programming languages as access points to the database server, using the Java and PHP programming languages. (Fall, Winter, Spring)
- CIT 230 Web Fundamentals (3:3:0)**  
This course prepares students to develop web sites through a study of Hypertext Markup Language (HTML5), Cascading Style Sheets (CSS), Usability principles and User Interface (UI) principles. (Fall, Winter, Spring)
- CIT 240 Networking (3:3:0)**  
This course teaches general networking principles to provide an understanding of data communication protocols, transmission systems, media, and software. (Fall, Winter, Spring)
- CIT 241 Network Design 1 (3:3:0)**  
Prerequisites: CIT 240  
Principles of network design standards and architectures. Configuration and use of networking devices including repeaters, hubs, bridges, switches, and routers to create enterprise networks. (Fall, Winter, Spring)
- CIT 260 Object Oriented Programming 1 (3:3:0)**  
Prerequisites: CIT 160  
An introduction to object oriented programming using the Java programming language. Students will write computer programs using primitive data types, control structures, classes, and objects. Students will read and draw UML class diagrams and will use Java swing to write programs with a graphical user interface. (Fall, Winter, Spring)
- CIT 261 Mobile Application Development (3:3:0)**  
Prerequisites: CIT 230  
This course is designed to begin to give you the skills required to create mobile device applications for modern mobile devices. Because of this the course focuses on how to solve larger, ill-structured business problems by designing and creating applications using a framework that lets you install cross platform JavaScript applications on the devices. (Fall, Winter, Spring)

- CIT 262 System Analysis and Design (3:3:0)**  
Prerequisites: CIT 260  
This course teaches the concepts of systems analysis and design for those desiring to work in the field of information technology. Initially, an overview of an information system and the software development life cycle (SDLC) processes are covered. Each phase of the SDLC process is then examined in depth and real experience gained through an actual project. Computer aided Software (CASE) tools will be used to design, and document an information system/project. (Fall, Winter, Spring)
- CIT 325 Database Administration (3:3:0)**  
Prerequisites: CIT 225; CIT 260  
This course is a continuation if CIT 320 and focuses on the development of stored functions, libraries, objects, procedures and packages. Students will design and write stored database program units in PL/SQL. Students will use an Integrated Development Environment (IDE) to write and test programs against database. (Fall, Winter, Spring)
- CIT 336 Web Development (3:3:0)**  
Prerequisites: CIT 230  
This course prepares students to develop web sites by continuing the implementation of concepts from the Web Frontend development course and adding backend components (MySQL databases, PHP, SQL, and the MVC design pattern) to create dynamic web sites. (Fall, Winter, Spring)
- CIT 341 Network Design 2 (3:3:0)**  
Prerequisites: CIT 240  
This course teaches general networking principles to provide an understanding of the basic switching, WAN technologies, and intermediate routing skills. Students will learn how to install and configure switches and routers in multiprotocol inter-networks using LAN and WAN interfaces, improve network performance and security, perform entry-level tasks in the planning, design, installation, operations, and troubleshooting of Ethernet and TCP/IP networks. (Fall, Winter, Spring)
- CIT 345 Wireless Networking (3:3:0)**  
Prerequisites: CIT 240  
This is an introductory course in Wireless Networking. The course encompasses the design, planning implementation, operation and troubleshooting of wireless communication. The material covers a comprehensive overview of technologies, security, and design practices. (Fall, Winter, Spring)
- CIT 352 Operating Systems 1 (3:3:0)**  
Prerequisites: CIT 240  
The purpose of this course is to provide a fundamental understanding of computer operating systems with a focus on Linux. (Fall, Winter, Spring)
- CIT 353 Operating Systems 2 (3:3:0)**  
Prerequisites: CIT 240  
The purpose of this course is to provide students with the administration skills to plan, install/configure, and manage Windows 2008 servers in a corporate environment. (Fall, Winter, Spring)
- CIT 360 Object Oriented Programming 2 (3:3:0)**  
Prerequisites: CIT 262  
This course is designed to allow you to experience a work-like environment. It pulls together Software Engineering and Object Oriented Programming techniques learned in previous courses. Based on customer requirements you will learn to find, evaluate, and select solutions to problems that have many "right" solutions. You will also learn new Object Oriented and software production techniques. (Fall, Winter, Spring)

# Computer Information Technology

Brigham Young University–Idaho 2013-2014

## **CIT 370 Systems Security 1**

**(3:3:0)**

The purpose of the course is to provide the student with an overview of the field of Information Security and Assurance. Students will be exposed to the spectrum of security activities, methods, methodologies, and procedures. This course offers a comprehensive guide for anyone wishing to take the CompTIA Security SY0-301 Certification Exam. It provides an introduction to the fundamentals of network security, including compliance and operational security; threats and vulnerabilities; application, data, and host security; access control and identity management; and cryptography. The course covers new topics in network security as well, including psychological approaches to social engineering attacks, web application attacks, penetration testing, data loss prevention, cloud computing security, and application programming development security.  
(Fall, Winter, Spring)

## **CIT 380 Project Management**

**(3:3:0)**

Total Course Fees: \$6.00

This course is designed to help you learn to use project management knowledge, tools, and techniques to plan, implement, and manage coordinated work efforts and solve business problems. The course will give you an opportunity to organize and plan the elements of one-time, unique endeavors that add value to an organization. Emphasis is on developing the people skills as well as the tools, techniques, and methods of professional project managers such as Microsoft Project Professional.  
(Fall, Winter, Spring)

## **CIT 381 Business Intel and Analytics**

**(3:3:0)**

Prerequisites: CIT 160

This course introduces business decision making software and applications. It introduces students to the architecture, design, development, and deployment of frameworks for decision making. It discusses principles of Decision Support Systems (DSS), Executive Information Systems (EIS), Expert Systems (ES), and Management Information Systems (MIS). This course teaches the student how to build analytical models using non-procedural development environments, like Microsoft Excel. Topics include learning how to build what-if, sensitivity, single and multiple goal seeking analysis models, like min-max inventory models, et cetera.  
(Fall, Winter, Spring)

## **CIT 425 Data Warehousing**

**(3:3:0)**

Prerequisites: CIT 225

This course defines the theory and practice of data analysis. The course will compare and contrast the operational and analytical database models. Students will learn how to define, implement and query a database warehouse by leveraging sample data warehouses built from Enterprise Resource Planning (ERP) and Customer Resource Management (CRM) solutions.  
(Fall, Winter, Spring)

## **CIT 460 Enterprise Development**

**(3:2:3)**

Prerequisites: CIT 225 and CIT 360

An overview of the architecture for N-tier applications is covered with a focus on the use of effective design patterns. Different technologies to implement the MVC control pattern will be explored. The J2EE architecture will be covered in depth including Servlets, Java Server Pages, and Enterprise Java Beans. Applications that implement all parts of the MVC pattern will be designed, implemented and deployed.  
(Fall, Winter, Spring)

## **CIT 465 iOS Application Development**

**(3:3:0)**

Prerequisites: CS 235; CIT 360

This course is designed to give you experience with syntactical and advanced development techniques within the iOS development ecosystem. These techniques are used to solve ill-structured problems like those encountered in businesses and consulting firms.  
(Fall, Winter, Spring)

## **CIT 470 System Security 2**

**(3:3:0)**

Prerequisites: CIT 240; CIT 352; CIT 370

The purpose of this lab based course is to teach students techniques for securing the entire network architecture both internal and external. Students will learn how to configure and use firewalls and intrusion detection/prevention systems. In addition students will learn how to harden operating systems and secure remote access.  
(Fall, Winter, Spring)

## **CIT 485 Enterprise Applications**

**(3:3:0)**

Prerequisites: CIT 225; CIT 352

This course is a capstone class that integrates design, analysis, database concepts and programming. The course will present product integration, configuration management and implementation concepts. Students will learn how to install, maintain and integrate a suite of products to deliver complex Enterprise Resource Planning (ERP) and Customer Resource Management (CRM) solution.  
(Fall, Winter, Spring)

## **CIT 490 Senior Project**

**(3:3:0)**

The course is designed to allow each student to design, build, and implement a project of their own choosing to further individual learning and career goals. Students will identify an area of interest and propose a project plan to pursue and achieve those goals primarily through the analysis, design, development, and implementation of a fully functional information system or completion of a professional-level certification. Students will work with faculty mentors on an individual basis for project approval and achieving the project objectives.  
(Fall, Winter, Spring)

## **CIT 495 Senior Practicum**

**(1:1:0)**

This is a capstone experience for the Computer Information Technology major. There are two options available: A research paper on a relevant Information Technology topic. Participate in service learning. The purpose of this course is to build on the knowledge you have learned in the Computer Information Technology major.  
(Fall, Winter, Spring)

## **CIT 498 Internship**

**(3:0:0)**

This is designed to be a capstone experience where a student applies the skills they have learned in information system in a real world environment.  
(Fall, Winter, Spring)

## **CIT 499 Special Topics**

**(3:3:0)**

This is a special topics course to address the latest advancements in information technology.  
(Fall, Winter, Spring)

