

Course Level SLOs A minimum of 3 and maximum of 6 SLOs. There are, however, exceptions. For example, if department faculty have developed one or two comprehensive SLO statements that cover the major components and the overarching goals of the course, they may present them to their Dean and Facilitator for approval as is. In cases where the facilitator or dean or faculty disagree with the rigor of the statements, the SLO statement will be forwarded to the Assessment of Learning Committee (ALC) for review and recommendations. <i>Include SLO #, Short Title, and SLO Statement Example: Math 170 SLO #3 Vectors and Complex Numbers.</i>	Course to Program SLO Alignment Mark with an X if you will use the course when assessing your PLO.			ILOs to Course SLOs Alignment					
	P1	P2	P3	I	II	III	IV	V	VI
CIS 3 Introduction to Microcomputer and Software Application: SLO #1 Basic windows operations Students will be able to utilize Windows, using files, folders and drives		X		4	2	4	4	4	1
SLO #2 Basic Word Processing Students will be able to create, save, copy and format a word processing document.		X		4	2	4	4	4	1
SLO #3 Basic Spreadsheet Usage Students will be able to create a spreadsheet, create formulas, use functions and format tools and create and format charts.		X		4	2	4	4	4	1
CIS 11 Help Desk Operations: SLO #1 Dealing with Customers Identify the communication strategies to build rapport and trust with customers and the proven techniques to handle irate, difficult and demanding customers.	X			4	4	4	4	4	4
SLO #2 Help Desk Operations Identify the major steps in the incident Management process.	X			4	4	4	4	4	2
SLO #3 Technical Writing Develop and create examples of end-user support documentation using enhancements including diagrams, images, and screen captures in order to produce user guides and FAQs.		X		4	4	4	4	4	2
SLO #4 Managing Knowledge Resources Demonstrate the use of software tools used to manage knowledge resources relating to end-user technical support.		X		4	4	4	4	4	3
SLO #5 Management Understand and evaluate the needs of the users in an organization, the cost and benefit of fulfilling the needs, and the staffing and training of the help desk to properly support the organization.			X	4	4	4	4	4	2
SLO #6 Professional Protocol Understand the mission of the help desk in an organization, and the professional responsibilities and skills required of a help desk technician.	X			4	4	4	4	4	4

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CIS 13 Computer Information Systems: SLO #1 Applicability Solve common business problems using appropriate information technology applications and systems design and developmental tools.		X	X	4	4	4	4	2	4
SLO #2 Applicability Demonstrate an understanding of the system development process and use of information systems within an organization.			X	4	4	4	4	2	4
SLO #3 Communications Identify and analyze existing and emerging technologies and their impact on organizations and society including communication and global relationships.	X		X	4	4	4	4	2	4
SLO #4 Networking Demonstrate knowledge of network configurations, risk management and security protocols.			X	4	4	4	4	2	4

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CIS 16 Introduction to Visual Basic: SLO #1 Creating an Interface Creating an application using the fundamental concepts and models of application development including program design techniques, data structures, programming, problem solving and programming and business function logic.			X	4	4	4	4	3	4
SLO #2 Application Development Demonstrate well-written, logical, and readable programs using a disciplined coding system and professional project planning and management methodology, including requirements document, event planning, flow charts, site maps, timelines, Gantt charts, data diagrams, user case documents, testing and debugging			X	4	4	4	4	3	4
SLO #3 Software Development Environment Identify and describe issues involved with software development including ethical conduct, business strategies, social media use, copyright laws and business practices.	X			4	4	4	4	4	4
SLO #4 Data Driven Application Create an application utilizing a database to store, modify, delete and retrieve database information for viewing and decision making		X		4	4	4	4	3	4
CIS 18 Systems Analysis and Design: SLO #1 Interview Techniques Use effective interview techniques to gain an understanding of the company computer system's current data inputs, outputs, and processes.			X	4	4	4	3	4	4
SLO #2 Graphical Models Understand how 1) data flow diagrams visually illustrate the way data moves through a company's information system, and 2) entity-relationship diagrams serve as a graphical model that depict the relationships among the entities of a company's information system.			X	4	4	4	3	4	4
SLO #3 Logical Design Documents Prepare logical design documentation for a company's new or modified computer system that includes a systems requirements document and a systems design specification.			X	4	4	4	3	4	4

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CIS 19 Introduction to the Internet and Web Publishing SLO #1 Web Sites Compare and contrast the Internet from its original text-based web sites to current and collaborative interactive web sites.			X	4	4	4	4	4	4
SLO #2 Security Analyze the features of a secure website and create secure browser settings.			X	4	4	4	4	2	4
SLO #3 Attacks Assess the likelihood of an attack on a local area network and set up a recovery plan.		X	X	4	4	4	4	2	4
SLO #4 Fraud Demonstrate an understanding of fraud and identity theft and its counter measures.		X	X	4	4	4	4	2	4
CIS 20 Microsoft Windows: SLO #1 Functions Understand functions of Start menu, Restore Points, and system-level rights of Administrators and Users Accounts with rights and privileges.		X		4	4	3	4	2	4
SLO #2 Maintenance Given an in-class assignment, set and name restore points, defragment a hard drive, delete cookies, and create users accounts.		X		4	4	3	4	2	4
SLO #3 Effects of Malware Understand effects of malware and appropriate countermeasures; demonstrate ability to perform backup and restore procedures		X	X	4	4	3	4	2	4
SLO #4 Security Software Given an in-class assignment, download, install, and execute security software.		X		4	4	3	4	2	4

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CIS 27 Using Spreadsheet Macros: SLO #1 Decision Support Tools Given an in-class assignment, construct accurate and complete spreadsheets that that utilize Decision Support Tools, what-ifs, the Scenario Manager, and Regression Analysis.		X	X	4	4	4	4	4	3
SLO #2 Pivot Tables and Charts Given an in-class assignment, construct accurate and complete spreadsheets that utilize Pivot Tables and Pivot Charts.		X	X	4	4	4	4	4	3
SLO #3 Atypical Charts Given an in-class assignment, construct accurate and complete spreadsheets that display atypical charts to include radar, surface, and doughnut; understand values in formulas taken to nth power.		X	X	4	4	4	4	4	3
SLO #4 Error Correction in Finance and Databases Given an in-class assignment, construct an accurate and complete spreadsheet that utilizes Error Correction, and advanced functions in the categories of Finance and Databases		X	X	4	4	4	4	4	3
CIS 28 Database Management Using Microsoft Access: SLO # 1 Concepts and Terms Understand database concepts and terminology		X		4	4	4	4	4	3
SLO # 2 Table Structures Design, create, and modify table structures and relationships. Modify tables to include default values, validation rules, input masks, and indices		X	X	4	4	4	4	4	3
SLO #3 Queries Create single-table and multi-table queries. Use queries to perform calculations on data contained in tables.		X	X	4	4	4	4	4	3
SLO # 4 Creating Forms Create forms for viewing, entering, and editing data.		X		4	4	4	4	4	3

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CIS 29 Advanced Database Applications: SLO #1 Tables Import and export tables for use in a database design.		X		4	4	4	4	4	3
SLO #2 Queries Create complex Queries Create and modify complex, multi-table and crosstab queries.		X	X	4	4	4	4	4	3
SLO #3 Forms Create and customize complex forms for capturing and reporting. Use Forms as a menu system.		X	X	4	4	4	4	4	3
SLO #4 Macros: Running MACROS Create and run MACROS.		X	X	4	4	4	4	4	3
SLO #5 Design Using Access Design and develop a working database using Access.		X	X	4	4	4	4	4	3
CIS 30 Introduction to eCommerce: SLO # 1 e-Business Plan By the end of the course, students will develop and present a Business plan for an Ecommerce Company with the functionality of selling goods or services.			X	3	4	4	4	4	4
SLO #2 Mobile Compare and Contrast various Mobile Technologies that are currently being used to conduct online business.			X	4	4	4	4	4	2
SLO #3 Software Understand the basic and advanced functions of eCommerce Software.		X		4	4	4	4	4	2

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CIS 40 Personal Computer Operations: SLO #1 Terminology Examine operating systems terminology and technologies as they apply to microcomputers.		X		4	4	4	4	2	4
SLO #2 PC Boot Problems Students will be able to solve a PC boot problem, given a set of circumstances that occur once the power button is pressed. Using a BIOS software troubleshooting flowchart, they will be able to determine which BIOS process is causing the failure.		X	X	4	4	4	4	2	4
SLO #3 Installation Students will be able to install a windows operating system. They will install the operating system, service packs, video and audio drivers, and configure the hardware resources.		X	X	4	4	4	4	2	4
CIS 80 Oracle Application Programming: SLO #1 Tables and Relationships Design and develop tables and relationships for common business problems.		X		4	4	4	4	2	4
SLO #2 Tables Create and process tables.		X		4	4	4	4	2	4
SLO #3 Solving Common Business Problems Solve common business oriented problems by using an application programming language to access database for answers to common business queries.		X	X	4	4	4	4	2	4
SLO #4 Conditional Statements Develop conditional statements and multiple level "if" statements to query database tables.		X	X	4	4	4	4	2	4

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CIS 133 Mashup JavaScript jQuery and AJAX: SLO #1 Fundamental concepts of client-side programming Students will demonstrate their ability to bring excitement to web pages using the fundamental components in the JavaScript programming language, including form data validation techniques, event handling using functions, timers, and control structures, repetitive programming methods, objects and object models, and the jQuery library.		X		4	3	4	4	2	4
SLO #2 Incorporating data in client-side programs Students will demonstrate their ability to incorporate client side data storage and transmission techniques using cookies, hidden form fields, querystrings, eXtensible Markup language (XML), JavaScript Object Notation (JSON), and Asynchronous JavaScript and XML (AJAX).		X	X	4	3	4	4	2	4
SLO #3 Developing a software application for the web Students will demonstrate the ability to create an e-commerce website that includes a fully functioning shopping cart and checkout/payment process, using a web development approach that incorporates planning, designing, coding, testing, and publishing to a web server.		X	X	4	4	4	4	4	4

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CIS 134 ASP.NET with C# Business Web Programming: SLO #1 Website Using ASP.NET and C# E-Commerce Site The student will demonstrate the ability to create an e-commerce website using ASP.NET and C#. Given detailed specifications and example code, create a functioning e-commerce website that includes: <ul style="list-style-type: none"> a. a market-competitive user interface b. a shopping cart c. product recommendations d. an order pipeline to follow the order process e. a database which includes: <ul style="list-style-type: none"> 1) customers 2) products with product attributes 3) orders 4) audit, order, inventory, and product recommendation information 5) search capability 	X	X	X	4	4	4	4	3	4
SLO #2 SQL, C# and ASP.NET Demonstrate knowledge of e-commerce development programming language usage.	X	X	X	4	4	4	4	2	4
SLO #3 Website Planning Demonstrate project design and management of a complete e-commerce website including the use of requirements document, database and class diagrams, use case definitions, flowcharts, cross-functional flowcharts, site maps, user controls, classes and timelines.	X	X	X	4	4	4	4	3	4

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CIS 136 Building Mobile Apps: SLO#1 Understanding Mobile Frameworks Students will be understand the different types of application frameworks used to develop mobile applications.		X		3	3	3	4	2	4
SLO#2 Designing Mobile User Interfaces Students will be able to design and create effective mobile application user interfaces.	X	X		4	4	4	4	3	4
SLO #3 Developing Mobile Applications Students will be able to architect, develop, test, and debug mobile applications that display various types of digital media, manage data, and use the native features of a mobile device.	X	X	X	4	4	4	4	4	4
SLO#4 Marketing Mobile Applications Students will understand how to deploy a mobile app to the app marketplace.			X	3	3	4	4	2	4
CIS 140 Data Communications Cisco 1: SLO #1 Data Communication Terms Describe and explain data communication terms such as broadband and baseband communications		X		4	4	4	4	2	4
SLO #2 Modulation Techniques Describe and use different modulation techniques such as time-division and frequency division.		X		4	4	4	4	2	4
SLO #3 Network Systems Analyze and design network systems using differing transmission methods such as copper wire, fiber optics, microwave and satellite.		X	X	4	4	4	4	2	4
SLO #4 Communications with the Internet Use microcomputer hardware and software to facilitate communications with the Internet. Describe how microcomputer hardware relates to data communications. Analyze security issues such as protections, detection and correction.	X			4	4	4	4	2	4
SLO #5 Local and Wide Area Networks Describe and define the similarities and differences between local area and wide area networks.		X		4	4	4	4	2	4
SLO #6 Ethical Considerations Identify ethical considerations such as privacy, hacking, and piracy.	X			4	4	4	4	2	4

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CIS 141 Networking Microcomputers Cisco 2: SLO #1 Connection and Connection-less Oriented Networks Describe connection-oriented network services and connectionless- oriented network services and identify their key differences.		X		4	4	4	4	2	4
SLO #2 Basic Methods Define flow control and describe the three basic methods used in connection oriented networking.		X		4	4	4	4	2	4
SLO #3 Functions of the TCP/IP Identify the functions of the TCP/IP transport-layer protocols.		X		4	4	4	4	2	4
SLO #4 Comparing Protocols Compare TCP/IP protocols to the ISO reference model layer four.		X	X	4	4	4	4	2	4
SLO #5 ICMP Functions Identify the functions performed by ICMP.		X		4	4	4	4	2	4
SLO #6 Routing Type Problems List problems that each routing type encounters when dealing with topology changes, and describe techniques used to reduce the number of these problems.		X	X	4	4	4	4	2	4

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CIS 142 Implementing and Administering Network Routers Cisco 3: SLO #1 Router Components Identify router components such as Ethernet and Serial Interfaces, Console and Auxiliary ports, Ram, NVRam, and Rom memory.		X		4	4	4	4	2	4
SLO #2 Router Hardware Configuration Create valid router hardware configurations using proper router protocols, IP addressing, interface addressing, and network address identification.		X	X	4	4	4	4	2	4
SLO #3 Router Design of LANs and WANs Install and configure routers for design of LANs and WANs.		X		4	4	4	4	2	4
SLO #4 Periodic Maintenance Perform periodic maintenance on routers by logging into the console port and testing IOS, the configuration file, and the status of each interface.		X		4	4	4	4	2	4
SLO #5 Troubleshooting Troubleshoot malfunctioning routers by examining the status of the POST test, the interface status, the IP status, and the status of the time-to-live facility.		X	X	4	4	4	4	2	4
SLO # 6 New Version of Cisco Download and install a new version of the Cisco Internetworking Operating system software.		X		4	4	4	4	2	4

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CIS 143 LAN and WAN Router Configurations Cisco 4: SLO # 1 Internet Working Modules Define and discuss internetworking models. Determine appropriate paths for internetworking		X		4	4	4	4	2	4
SLO #2 User Interfaces Install user interfaces.		X		4	4	4	4	2	4
SLO #3 Router Issues List basic router issues. Describe serial connections for wide area networking. Auto install router configurations		X		4	4	4	4	2	4
SLO #4 Configuring Routers Configure hardware and software for routers to use both LAN and WAN protocols.		X		4	4	4	4	2	4
SLO #5 Configuring Protocols Configure TCP/IP and AppleTalk protocols. Manage traffic with access lists		X		4	4	4	4	2	4