Assessment: Course Four Column

FALL 2015

El Camino: Course SLOs (BUS) - Computer Information Systems

ECC: CIS 13:Computer Information Systems

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #1 Applicability - Solve common business problems using appropriate information technology applications and systems design and developmental tools. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2014-15 (Fall 2014), 2015-16 (Fall 2015), 2016-17 (Fall 2016), 2017-18 (Fall 2017), 2018-19 (Fall 2018) **Input Date:** 11/12/2013	**Exam/Test/Quiz -** Exam developed from textbook material: Related Documents: Assessment Tool 1. A clerk in a video store may need to determine if a particular movie is available for rental and, if not, when it is due to be returned. The type of software used for such tasks is a database management system. (T/F) 10. _____ illustrate the activities that are part of a system as well as data flowing into and out of each activity. a. Decision tables c. Data flow diagrams b. Feasibility reports d. Entity-relationship diagrams 13. Class diagrams and use case diagrams are used to illustrate systems based on the concept of ____. a. procedures c.	**Semester and Year Assessment Conducted:** 2013-14 (Fall 2013) **Standard Met? :** Standard Met 429 students were assessed. Of the 429: • 100 percentile: 30 • 80 percentile: 77 students • 60 percentile: 151 students • Below 60 percentile: 171 students 60% met the expectation. Results by question: Statement Percentage Correct 1 91 10 80 13 25 19 44 20 40 Summarize the patterns observed in the data. What were the most important findings from the data? The overall results (60%) are acceptable. While the expectation was met and thirty (30) students achieved a score of 100%, the data in the lower percentiles suggests: 1) many students are experiencing some difficulty	**Action:** The assessment should be reviewed and revised, specifically question 13 as this was the question most students answered incorrectly most often. (05/15/2014) **Action Category:** SLO Assessment Process **Action:** Additional instruction concerning application software. (05/15/2014) **Action Category:** Teaching Strategies **Action:** Additional instruction concerning system design and development tools. (05/15/2014) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	entities b. functions d. objects 19. Businesses and many individuals often use office suites, sometimes called ____, to produce written documents. a. integral suites c. mid-range suites b. productivity software suites d. corporate suites 20. Some mobile software programs are designed to be compatible with popular ____ to facilitate sharing documents between the two platforms. a. Web-based software c. desktop software b. system utilities d. Internet utilities **Standard and Target for Success:** It is expected that 60% of the students correctly answer three or more questions.	understanding the textbook material in regard to the topics covered by the SLO statement or 2) one or more questions need revision or 3) the material needs to be presented differently for improved student comprehension. Out of the four (4) student learning outcomes (SLOs) assessed via the twenty (20) question exam, this SLO had the lowest success rate. This may be due to the timing of the exam. Many of the concepts presented in this SLO may have been presented early in semester while the assessment instrument was administered during the last week of the semester. The three (3) statements with the lowest scores were analyzed more closely. Question 13: 25% Correct: This statement presented the student with two system development tools specifically utilized with objects. Based on the results, most students did not recognize this. This question may need revision. Also, presentation of this topic may need an approach that clarifies and explains these terms and the concept of objects in a manner that will allow more students to successfully grasp the concept. Question 19: 44% Correct: Here students were presented with the task of identifying another term for office suite. While the answer choices were similar, the underperformance on this question suggests students did not spend time carefully reviewing their choices. Question 20: 40% Correct: This statement was designed to test the students' ability to understand synchronization and file sharing between computer platforms. This question may need revision. Additional instruction concerning application software and platforms should be added. (01/24/2014) **Faculty Assessment Leader:** Gabriella Fernandez **Faculty Contributing to Assessment:** R. Perkins, R. Harris, L.	

Course SLOs	Assessment Method Description	Results	Actions
		Daniels, G. Fernandez, P. Baumgardner. P. Vacca, R. Barton, J, Thompson, M. Chaban, J. Siddiqui, B. Williams, J. Craig	
	Exam/Test/Quiz - Students were given a test consisting of true/false and multiple choice questions relating to the material covered in SLO#1 of CIS-13. They were given a total of 10 questions: True/False 1.Information processing is a vital activity today because the success of many businesses depends heavily on the wise use of information. 2.Systems analysts design computer systems to be used within their companies. 3.A mainframe computer is the standard choice for large organizations that need to manage large amounts of centralized data. 4.Small office networks enable workers to access company records stored on a network server. Multiple Choice 5.A growing number of college campuses have wireless ____ on campus that allow students to use their PCs to connect wirelessly to the college network and the Internet from anywhere on campus. 6.When data is processed into a meaningful form, it becomes ____.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met Total Number of Students: 342 Correct / Incorrect / Percent Correct Question 1: 326 / 16 / 95.41 Question 2: 212 / 130 / 62.00 Question 3: 307 / 35 / 89.73 Question 4: 288 / 54 / 84.26 Question 5: 331 / 11 / 96.64 Question 6: 235 / 107 / 68.64 Question 7: 264 / 78 / 77.24 Question 8: 178 / 164 / 51.95 Question 9: 260 / 82 / 76.14 Question 10: 289 / 53 / 84.55 The overall percentage correct for SLO #1 was 78.66%. However, the target for this SLO is to achieve a minimum of 70% for each question. While seven out of the ten questions met the goal (>=70%), student responses to questions 2, 6, and 8, did not. (12/18/2015) **Faculty Assessment Leader:** A. Lee **Faculty Contributing to Assessment:** All full-time and part-time CIS faculty	**Action:** More time needs to be spent on explaining systems and data design concepts, including the roles of the system or data analyst. (05/10/2016) **Action Category:** Teaching Strategies **Action:** The question regarding software applications should be replaced with a different example. (05/10/2016) **Action Category:** SLO/PLO Assessment Process
		Semester and Year Assessment Conducted: 2014-15 (Fall 2014) **Standard Met? :** Standard Not Met Total number of students participating: 218 Correct / Incorrect / Percentage Correct Question 1: 207 / 11 / 94.95 Question 2: 129 / 89 / 59.17 Question 3: 185 / 33 / 84.86 Question 4: 183 / 35 / 83.94	**Action:** More time needs to be spent explaining the process of Systems Analysis and Design. (05/05/2015) **Action Category:** Teaching Strategies **Action:** A test question will be reworded to replace the term Office Suite with Microsoft Office Suite of Software Applications. (05/05/2015)

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	7.Sarah has hired a programmer to create a Web page for her business. What type of programming language will the programmer use? 8.Businesses and many individuals often use office suites, sometimes called ____, to produce various types of documents. 9.____ is used to plan, schedule, track, and analyze the tasks involved in a project, such as the construction of a building or the schedule for preparing a large advertising campaign for a client. 10.Bryan's supervisor explains that to retrieve information from the database, Bryan needs to use a ____. **Standard and Target for Success:** It is expected that the "correct" response percentage rate for all students on each question of the assessment will be 70% or higher.	Question 5 214 4 98.17 Question 6 147 71 67.43 Question 7 170 48 77.98 Question 8 92 126 42.20 Question 9 152 66 69.72 Question 10 184 34 84.40 The overall correct response rate for all students on all questions was 76.28%. Our target, however, was to have each individual question answered correctly by a minimum of 70% of the students assessed. Six of the ten questions were answered satisfactorily or better (>= 70%), while the remaining four questions (questions 2, 6, 8 and 9) were not. (01/25/2015) **Faculty Assessment Leader:** J. Siddiqui **Faculty Contributing to Assessment:** All full-time and part-time CIS instructors				**Action Category:** Teaching Strategies
SLO #2 System Development Process - Demonstrate an understanding of the system development process and use of information systems within an	**Exam/Test/Quiz -** Exam developed from textbook material. Assessment Tool 4. In addition to the normal	**Semester and Year Assessment Conducted:** 2013-14 (Fall 2013) **Standard Met? :** Standard Met 439 students were assessed. Of the 439:				**Action:** A review of question 8 for possible revision. (05/15/2014) **Action Category:** SLO/PLO Assessment Process

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organization. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015), 2016-17 (Fall 2016), 2017-18 (Fall 2017), 2018-19 (Fall 2018) **Input Date:** 11/12/2013	business transaction processing systems, there are also specialty transaction processing systems used by law enforcement, the military, and other organizations. (T/F) 6. In traditional system development, the phases of system development are not carried out in a preset order. (T/F) 7. Information systems are used to support business intelligence (BI). (T/F) 8. Each phase of the ____ produces some type of documentation to pass on to the next phase. a. system analysis c. system implementation b. system development life cycle d. system acquisition 9. A(n) ____ provides regular, routine, and timely information to decision makers. a. transaction processing system b. office system c. general ledger system d. management information system (MIS) **Standard and Target for Success:** It is expected that 60% of the students correctly answer three or more questions.	• 100 percentile:187 • 80 percentile 137 students • 60 percentile: 73 students • Below 60 percentile: 42 students 90% met the expectation. Results by question: Statement Percentage Correct 4 93 6 75 7 88 8 66 9 80 Summarize the patterns observed in the data. What were the most important findings from the data? The overall results (90%) are very encouraging, suggesting that most students understand the concepts presented in the assessment. The teaching methodologies utilized accomplished the goals of this SLO. Question 8, the lowest scoring statement was analyzed more closely. Question 8: 66% Correct: This statement challenges the student to identify one component of the system development life cycle (SDLC). The answer choices are very similar causing the student to focus and consider each choice thoughtfully in order to arrive at the correct answer. While most of the students answered this correctly and the text has ample material on the SDLC, a higher success rate was expected on this question. The data suggests possible revision of the question or additional instruction concerning SDLC concepts. (01/24/2014) **Faculty Assessment Leader:** Gabriella Fernandez **Faculty Contributing to Assessment:** R. Perkins, R. Harris, L. Daniels, G. Fernandez, P. Baumgardner. P. Vacca, R. Barton,	**Action:** Consider additional instruction concerning SDLC concepts. (05/15/2014) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
		J, Thompson, M. Chaban, J. Siddiqui, B. Williams, J. Craig	
	Exam/Test/Quiz - Students are given a test consisting of true/false and multiple choice questions relating to the material covered in chapter 12 (Information Systems and Systems Development) of the course textbook. **Standard and Target for Success:** It is expected that the "correct" response percentage rate for all students on each question of the assessment will be 70% or higher. See below for rubric/definition of satisfactory. Excellent: >= 90% Good: >= 80% and < 90% Satisfactory: >= 70% and < 80%% Unsatisfactory: >= 60% and < 70% Failing: < 60%	**Semester and Year Assessment Conducted:** 2013-14 (Spring 2014) **Standard Met? :** Standard Not Met Total number of students participating: 371 Excellent Good Satisfactory Unsatisfactory Failing Correct Percent Question 1 19/371 0/371 40/371 53/371 85/371 197/371; 53.1% Question 2 224/371 93/371 17/371 8/371 0/371 342/371; 92.2% Question 3 238/371 93/371 9/371 4/371 0/371 344/371; 92.7% Question 4 176/371 106/371 45/371 0/371 0/371 327/371; 88.1% Question 5 200/371 83/371 34/371 11/371 0/371 328/371; 88.4% Question 6 53/371 53/371 81/371 17/371 46/371 250/371; 67.4% Question 7 40/371 67/371 50/371 74/371 32/371 263/371; 70.8% Question 8 38/371 10/371 41/371 22/371 79/371 190/371; 51.1% Question 9 27/371 70/371 62/371 84/371 21/371 264/371; 71.1% Question 10 144/371 59/371 79/371 29/371 3/371 314/371; 84.6% The overall correct response rate for all students on all questions was 76.0%. Our target, however, was to have each individual question answered correctly by a minimum of 70% of the students assessed. Seven of the ten questions were answered satisfactorily or better (>= 70%), while the remaining three questions (questions 1, 6 and 8) were not. (08/25/2014) **Faculty Assessment Leader:** Randy Harris **Faculty Contributing to Assessment:** P. Vacca, L. Daniels, J. Thompson, R. Perkins, P. Baumgardner, M. Chaban, J. Siddiqui, J. Craig, R. Barton	**Action:** More time needs to be spent explaining the tasks that are required during each phase of the SDLC (systems development life cycle). (12/11/2014) **Action Category:** Teaching Strategies **Action:** A test question will be reworded to replace the acronym TPS with the words Transaction Processing System. (10/01/2014) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	Exam/Test/Quiz - Students were given a test consisting of true/false and multiple choice questions relating to the material covered in SLO#2 of CIS-13. They were given a total of 10 questions: True/False 1. TPS transactions are typically processed using batch processing. 2. In addition to the normal business transaction processing systems, there are also specialty transaction processing systems used by law enforcement, the military and other organizations. 3. The information that information systems provide is used to support a wide variety of business activities, from day-to-day transactions to long-term strategic planning. 4. Systems development is the process of analyzing a work environment, designing a new system or making modifications to the current system to fit the current needs of that work environment. Multiple Choice 5. When computer systems perform in ways that would be considered intelligent if observed in humans, it is commonly referred to as _____. 6. Each phase of the _____ produces some type of documentation to pass on to the next phase. 7. _____ is the phase of	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met Total Number of Students: 342 Correct / Incorrect / Percent Correct Question 1: 321 / 21 / 93.86 Question 2: 320 / 22 / 93.48 Question 3: 316 / 26 / 92.54 Question 4: 299 / 43 / 87.28 Question 5: 311 / 31 / 91.00 Question 6: 283 / 59 / 82.68 Question 7: 233 / 109 / 68.00 Question 8: 179 / 163 / 52.33 Question 9: 225 / 117 / 65.88 Question 10: 300 / 42 / 87.86 The overall percentage correct for SLO #2 was 81.49%. However, the target for this SLO is to achieve a minimum of 70% for each question. While seven out of the ten questions met the goal (>=70%), student responses to questions 7, 8, and 9, did not. (12/18/2015) **Faculty Assessment Leader:** A. Lee **Faculty Contributing to Assessment:** All full-time and part-time CIS faculty **Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Not Met Total number of students participating: 218 Correct / Incorrect / Correct; Percentage Question 1: 85 / 133 / 38.99 Question 2: 202 / 16 / 92.66 Question 3: 204 / 14 / 93.58 Question 4: 178 / 40 / 81.65 Question 5: 196 / 22 / 89.91 Question 6: 170 / 48 / 77.98 Question 7: 157 / 61 / 72.02	**Action:** More time needs to be spent explaining the systems development life cycle (SDLC), and concepts in data analysis and design. (05/10/2016) **Action Category:** Teaching Strategies **Action:** A test question will be reworded to replace the acronym TPS with the words Transaction Processing System. (05/05/2015) **Action Category:** Teaching Strategies **Action:** More time needs to be spent explaining the characteristics of data used in a database. (05/05/2015) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results				Actions
	system development in which the problem area is studied in depth and the needs of system users are assessed. 8. A(n) _____ is used to describe the characteristics of data used in a database or other type of computer system. 9. For the consumer products division, Acme Corporation is planning to replace the old system with a new one all at once. This is called a _____ conversion. 10. A(n) information system is a collection of elements that interact to generate information needed by the users in an organization. People are one of those elements. Which of the following is/are also an element that makes up an information system? **Standard and Target for Success:** It is expected that the "correct" response percentage rate for all students on each question of the assessment will be 70% or higher.	Question 8 87 131 39.91 Question 9 144 74 66.06 Question 10 190 28 87.16 The overall correct response rate for all students on all questions was 74%. Our target, however, was to have each individual question answered correctly by a minimum of 70% of the students assessed. Eight of the ten questions were answered satisfactorily or better (>= 70%), while the remaining two questions (questions 1 and 8) were not. (01/25/2015) **Faculty Assessment Leader:** J. Siddiqui **Faculty Contributing to Assessment:** All full-time and part-time CIS instructors				
SLO #3 Communications - Identify and analyze existing and emerging technologies and their impact on organizations and society including communication and global relationships. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015), 2016-17 (Fall 2016),	**Exam/Test/Quiz -** Exam developed from textbook material. Assessment Tool 2. If a government tries to block Internet access, users cannot use a third party located in another country to overcome the block. (T/F)	**Semester and Year Assessment Conducted:** 2013-14 (Fall 2013) **Standard Met? :** Standard Met 439 students were assessed. Of the 439: • 100 percentile:114 • 80 percentile: 152 students • 60 percentile: 108 students • Below 60 percentile: 65 students				**Action:** Additional instruction concerning emerging technologies and the global impact of technology. (05/15/2014) **Action Category:** Teaching Strategies **Action:** Review of question 11 for possible revision. (05/15/2014) **Action Category:** SLO/PLO

Course SLOs	Assessment Method Description	Results	Actions
2017-18 (Fall 2017), 2018-19 (Fall 2018) **Input Date:** 11/12/2013	5. The Internet has provided a marketplace where U.S. citizens may purchase bootleg or illegal copies of movies on DVDs from another country. (T/F) 11. Artificial intelligence systems that carry on written conversations with people in a natural language (such as English, Spanish, Japanese) are called _____. a. chatterbots c. neural networks b. expert systems d. biometric systems 12. _____ is often used to conduct face-to-face interactive meetings between people in different locations. a. Business web conferencing c. Social networking b. Message boards d. Twitter 14. _____ has enormous potential for providing quality medical care to individuals who live in rural or underdeveloped areas and who do not have access to sufficient medical care. a. Telemedicine c. Broadcasting b. Telecommuting d.	85% met the expectation. Results by question: Statement Percentage Correct 2 64 5 65 11 68 12 89 14 78 Summarize the patterns observed in the data. What were the most important findings from the data? The overall results (85%) are very good, and one hundred fourteen (114) students achieved a score of 100%. The teaching methodologies are accomplishing the goals of this SLO. However, the three questions with the lower scores test students suggest students in all CIS 13 classes need more information on emerging technologies and global impact of technology. Students do have a grasp on personal communication technology. These three questions were analyzed more closely. Question 2: 64% Correct: This statement presented the student with concepts related to internet access, however the text briefly covers this topic. Therefore the concepts in this statement may need additional instruction in order to achieve higher success. Question 5: 65% Correct: Here students were presented with the concepts of the global impact of technology. The low performance here may have the same causes as question 2. Further instruction on the global impact of technology is needed. Question 11: 68% Correct: The concept of artificial intelligence (AI) is presented in this statement. The text covers this topic by reviewing a variety of different types of AI, but few in great depth. This question may need revision.	Assessment Process

Course SLOs	Assessment Method Description	Results	Actions
	Infrared transmission **Standard and Target for Success:** It is expected that 60% of the students correctly answer three or more questions.	In addition, possibly additional instruction on this topic is needed. (01/24/2014) **Faculty Assessment Leader:** Gabriella Fernandez **Faculty Contributing to Assessment:** R. Perkins, R. Harris, L. Daniels, G. Fernandez, P. Baumgardner. P. Vacca, R. Barton, J, Thompson, M. Chaban, J. Siddiqui, B. Williams, J. Craig	
	Students were given a test consisting of true/false and multiple choice questions relating to the material covered in SLO#3 of CIS-13. They were given a total of 10 questions: True/False 1.GPS receivers are commonly used by individuals to determine their geographic location while hiking and to obtain driving directions while traveling. 2.Some monitoring systems in use today use the RFID tags and RFID readers to monitor the status of objects (such as shipping boxes, livestock, or expensive equipment) to which the RFID tags are attached. 3.Physicians can use telemedicine to perform remote diagnosis of patients. 4.Communications satellites are space-based devices launched into orbit around the earth to receive and transmit microwave signals to and from earth.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met Total Number of Students: 342 Correct / Incorrect / Percent Correct Question 1: 337 / 5 / 98.45 Question 2: 319 / 23 / 93.24 Question 3: 296 / 46 / 86.42 Question 4: 261 / 81 / 76.19 Question 5: 182 / 160 / 53.13 Question 6: 319 / 23 / 93.25 Question 7: 300 / 42 / 87.72 Question 8: 146 / 196 / 42.81 Question 9: 275 / 67 / 80.27 Question 10: 193 / 149 / 56.34 The overall percentage correct for SLO #3 was 76.78%. However, the target for this SLO is to achieve a minimum of 70% for each question. While seven out of the ten questions met the goal (>=70%), student responses to questions 5, 8, and 10, did not. (12/18/2015) **Faculty Assessment Leader:** A. Lee **Faculty Contributing to Assessment:** All full-time and part-time CIS faculty	**Action:** More time needs to be spent on explaining concepts in wireless and satellite communications. (05/10/2016) **Action Category:** Teaching Strategies
	Multiple Choice 5.A global positioning system (GPS)	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Not Met Total number of students participating: 218 Correct / Incorrect / Percentage Correct Question 1: 215 / 3 / 98.62	**Action:** More time needs to be spent explaining the differences between synchronous and asynchronous transmission. (05/05/2015) **Action Category:** Teaching Strategies **Action:** More time needs to be spent

Course SLOs	Assessment Method Description	Results				Actions
	consists of ____ and a group of GPS satellites. 6.__ technology is commonly used to monitor the status of objects, such as shipping boxes, livestock, or expensive equipment to which these types of tags are attached. 7.____ is the use of networking technology to conduct real-time, face-to-face meetings between individuals physically located in different places. 8.Some wireless ____ are created by cities or large organizations to provide free or low-cost Internet access to residents of a particular area. 9. In ____ transmission, data is sent at the same time as other related data to support certain types of real-time applications that require the different types of data to be delivered at the proper speed for that application. 10.____ satellites travel at a speed and direction that keeps pace with the earth's rotation, so they appear (from earth) to remain stationary over a given spot.	Question 2 204 14 93.58 Question 3 171 47 78.44 Question 4 171 47 78.44 Question 5 109 109 50.00 Question 6 205 13 94.04 Question 7 180 38 82.57 Question 8 103 115 47.25 Question 9 29 189 13.30 Question 10 104 114 47.71 The overall correct response rate for all students on all questions was 68.4%. Our target, however, was to have each individual question answered correctly by a minimum of 70% of the students assessed. Six of the ten questions were answered satisfactorily or better (>= 70%), while the remaining four questions (questions 5, 8, 9 and 10) were not. (01/25/2015) **Faculty Assessment Leader:** J. Siddiqui **Faculty Contributing to Assessment:** All full-time and part-time CIS instructors				explaining the various options and ranges covered by wireless network. (05/05/2015) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	Standard and Target for Success: It is expected that the "correct" response percentage rate for all students on each question of the assessment will be 70% or higher.		
SLO #4 Networking - Demonstrate knowledge of network configurations, risk management and security protocols. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015), 2016-17 (Fall 2016), 2017-18 (Fall 2017), 2018-19 (Fall 2018) **Input Date:** 11/12/2013	**Exam/Test/Quiz -** Exam developed from textbook material. Assessment Tool 3. A firewall is a security system that essentially creates a barrier between a computer or network and the Internet in order to protect against unauthorized access. (T/F) 15. A ____ provides a secure private tunnel from the user's computer through the Internet to another destination and is most often used to provide remote employees with secure access to a company network. a. laptop private network c. tunnel private network b. USB private network d. virtual private network 16. A ____ network uses a central device to connect each device to the network. a. star c. bus b. ring d. mesh 17. Which protocol can safely be used to transmit sensitive information, such as credit card numbers? a. ftp c. https	**Semester and Year Assessment Conducted:** 2013-14 (Fall 2013) **Standard Met? :** Standard Met 439 students were assessed. Of the 439: • 100 percentile: 95 • 80 percentile 152 students • 60 percentile: 120 students • Below 60 percentile: 72 students 84% met the expectation. Results by question: Statement Percentage Correct 3 96 15 57 16 47 17 79 18 81 Summarize the patterns observed in the data. What were the most important findings from the data? The overall result was very good (84%). The teaching methodologies employed are accomplishing most of the goals of this SLO. Given the results for questions 15 and 16, the data patterns suggests all CIS 13 classes need additional instruction on networking. Students do have a grasp on security protocols. The two statements with the lowest scores were analyzed more closely.	**Action:** Additional instruction on networking. (05/15/2014) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	b. http d. tcp 18. Digital signatures _____ _. a. may help prevent online fraud c. can help ISPs block phishing e-mails b. authenticate email d. all of the above **Standard and Target for Success:** It is expected that 60% of the students correctly answer three or more questions.	Question 15: 57% Correct: This statement presented the student with concepts related to network security. Secure network connections are briefly covered in the text. Students need more information on secure network connections. Question 16: 47% Correct: Here students were presented with the topic of network hardware configuration. The text provides ample material on this subject however, the low performance indicates presentation on network topologies needs an approach that clarifies and explains the topic in a manner that will enable students to grasp this subject more successfully. (01/24/2014) **Faculty Assessment Leader:** Gabriella Fernandez **Faculty Contributing to Assessment:** R. Perkins, R. Harris, L. Daniels, G. Fernandez, P. Baumgardner. P. Vacca, R. Barton, J, Thompson, M. Chaban, J. Siddiqui, B. Williams, J. Craig	
	Exam/Test/Quiz - Students were given a test consisting of true/false and multiple choice questions relating to the material covered in SLO#4 of CIS-13. They were given a total of 10 questions: True/False 1.Client-server networks are frequently referred to as peer-to-peer networks. 2.Transferring data from a client PC to a server is referred to as downloading. 3.A firewall is a security system that creates a barrier between a computer or network and the Internet in order to protect against unauthorized access. 4.Writing a computer virus or other	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met Total Number of Students: 342 Correct / Incorrect / Percent Correct Question 1: 209 / 133 / 61.11 Question 2: 219 / 123 / 63.95 Question 3: 338 / 4 / 98.72 Question 4: 225 / 117 / 65.74 Question 5: 260 / 82 / 76.05 Question 6: 221 / 121 / 64.52 Question 7: 319 / 23 / 93.36 Question 8: 234 / 108 / 68.33 Question 9: 285 / 57 / 83.40 Question 10: 231 / 111 / 67.63 The overall percentage correct for SLO #4 was 74.28%. However, the target for this SLO is to achieve a minimum of 70% for each question. While four out of the ten questions met the goal (>=70%), student responses to questions 1, 2,4,6,8, and 10, did not. (12/18/2015) **Faculty Assessment Leader:** A. Lee	**Action:** More time needs to be spent on explaining and reinforcing concepts in computer networks and security. (05/10/2016) **Action Category:** Teaching Strategies

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	type of malware or even posting the malware code on the Internet is not illegal, but it is considered highly unethical and irresponsible behavior. 5.Denial of service attacks are usually of insignificant cost in terms of business lost. Multiple Choice 6.A ____ is a network that covers a relatively small geographical area, such as a home, office building, or school. 7.____ refers to the amount of data that can be transferred (such as over a certain type of networking medium) in a given time period. 8.____ is a wireless standard that is designed for very short-range (10 meters, approximately 33 feet, or less) connections. 9.A network adapter, also called a ____ when it is in the form of an expansion card, is used to connect a computer to a network. 10.____ includes any acts of malicious destruction to a computer or computer resource. **Standard and Target for Success:** It	**Faculty Contributing to Assessment:** All full-time and part-time CIS faculty **Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Not Met Total number of students participating: 218 Correct / Incorrect / Percentage Correct Question 1: 116 / 102 / 53.21 Question 2: 131 / 87 / 60.09 Question 3: 216 / 2 / 99.08 Question 4: 121 / 97 / 55.50 Question 5: 138 / 80 / 63.30 Question 6: 134 / 84 / 61.47 Question 7: 195 / 23 / 89.45 Question 8: 116 / 102 / 53.21 Question 9: 195 / 23 / 89.45 Question 10: 137 / 81 / 62.84 The overall correct response rate for all students on all questions was 68.8%. Our target, however, was to have each individual question answered correctly by a minimum of 70% of the students assessed. Three of the ten questions were answered satisfactorily or better (>= 70%), while the remaining seven questions (questions 1, 2, 4, 5, 6, 8 and 10) were not. (01/25/2015) **Faculty Assessment Leader:** J. Siddiqui **Faculty Contributing to Assessment:** All full-time and part-time CIS instructors	**Action:** More time needs to be spent explaining the various issues involved in Computer Security. (05/05/2015) **Action Category:** Teaching Strategies **Action:** More time needs to be spent explaining the concept of client-server networking. (05/05/2015) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	is expected that the “correct” response percentage rate for all students on each question of the assessment will be 70% or higher.		

ECC: CIS 133:Mashup JavaScript, jQuery and AJAX

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
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). **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Laboratory Project/Report -** A series of 5 lab assignments during the last half of the semester, designed to test the students ability to design, develop, and implement data transmission and storage programming techniques **Standard and Target for Success:** It is expected that 75% of the students will score 5 points on each of the 5 assignments **Related Documents:** Handout 8_cookies.docx Handout 11_XML.docx Handout 12_JSON Handout.docx Handout 13_ AJAX.docx Handout_6B_Form transmission.pdf CIS133_SLO 2 Assignments.zip	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met Total number of students completing the course: 19 JS Lab 6 – 16 – 3 – 84% JS Lab 7 – 19 – 0 – 100% JS Lab 8A – 18 – 1 – 94% JS Lab 8B – 18 – 1 – 94% JS Lab 8C – 18 – 1 – 94% Lab 6 – Form Transmission could be better. The coding techniques for storing and passing form data from page to page is easy, but for retrieving form data, it is quite difficult, as to obtain the transmitted data, parsing techniques and use of the intrinsic javascript object library come into play. I changed the teaching strategy for cookies (JS Lab 7) and the students were able to grasp the concept. Though I briefly touched on jSON, the students were excited	**Action:** The newer browser versions are installed in the labs which make Lab 10- cookie debugging difficult to achieve. Three browsers were tested (IE, Chrome, and Firefox) with varying results. In the end, the instructor wrote a special program for the class to use to aid in debugging. For the next class, this lab needs to be modified and the students be given third party cookie debuggers to use. (12/16/2016) **Action Category:** Teaching Strategies **Action:** Spend more time explaining form transmission parsing techniques using the object library. (12/01/2015) **Action Category:** Teaching Strategies **Action:** Modify COR to allocate more time to data transmission using AJAX, XML and jSON (05/15/2015) **Action Category:** Curriculum Changes

	# of students with 5 points	# of students with less than 5 points	% of students meeting standard
Lab 10	19	2	89%
Lab 11a	19	3	84%
Lab 11b	19	2	89%
Lab 11c	19	1	95% (12/17/2015)

Faculty Assessment Leader: M. Chaban

Course SLOs	Assessment Method Description	Results	Actions
		to learn how easy it is to incorporate jSON data into their websites. (02/04/2015) **Faculty Assessment Leader:** M. Chaban	
		Semester and Year Assessment Conducted: 2013-14 (Spring 2014) **Standard Met? :** Standard Met Total number of students completing the course: 17 # of students with 5 points # of students with less than 5 points % of students meeting standard Lab 6B 16 1 94% Lab 8 14 3 82% Lab 11 17 0 100% Lab 12 17 0 100% Lab 13 15 2 88% Lab 8 – data storage techniques using client-side cookies, could be better. The coding techniques for writing cookies is easy, but for retrieving cookies, it is quite difficult, as to decode parsing techniques and use of the javascript object library come into play. (09/05/2014) **Faculty Assessment Leader:** Monica Chaban	**Action:** Spend more time explaining parsing techniques using the object library. (09/30/2014) **Action Category:** Teaching Strategies

ECC: CIS 140:Data Communications CISCO 1

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
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. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Exam/Test/Quiz -** Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. They were asked to identify procedures to keep User ID, password, and session contents private when establishing remote CLI connectivity with a switch or router to manage it. They also had to contrast a console line with a network line when use the Command Line Interface as it relates to security. **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Met The outcome was satisfactory, but we will strive to reach the 90% range. Out of 22 taking the exam 86% of them met the standards that Cisco requires. I think continued focus on the security measures related to the Internet (both wired and wireless) will bring better results. (02/02/2015) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to illustrate the effects of worms, viruses, and a Trojan horse as they related to the Internet. (09/14/2015) **Action Category:** Teaching Strategies **Action:** Discuss and illustrate the results of employing Secure Shell, and WPA2 protection on active networks. (09/14/2015) **Action Category:** Teaching Strategies
	Exam/Test/Quiz - Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. Describe how microcomputer hardware relates to data communications. **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	**Semester and Year Assessment Conducted:** 2014-15 (Spring 2015) **Standard Met? :** Standard Met I think the outcome was satisfactory. Out of the 16 students taking the exam 82% met the standards that Cisco requires. I think showing the integration and interaction of hardware and software will continue to illustrate the concept. (09/15/2015) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to discuss how microcomputer hardware and software interact to facilitate Internet communication. (05/02/2016) **Action Category:** Teaching Strategies
	Exam/Test/Quiz - Students were given a multiple choice assessment consisting of an exam with questions pertaining to topics for SLO#4. **Standard and Target for Success:** It is expected that 85% of students score 70% or above on the total	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met Excellent: =63% (19/30) Good: = 23% (7/30) Satisfactory = 6% (2/30) Unsatisfactory= 3% (1/30) Failing = 3%= (1/30)	**Action:** Add additional questions to the assessment reflecting topics covering the Internet of things (IoT). (05/08/2016) **Action Category:** SLO/PLO Assessment Process

Course SLOs	Assessment Method Description	Results	Actions
	Excellent: = 90 or above Good: = 80-89 Satisfactory = 70-79 Unsatisfactory=60-69 Failing = <60	93% of students scored at 70% and above for this assessment. (12/20/2015) **Faculty Assessment Leader:** A. Lee	

ECC: CIS 141:Networking Microcomputers CISCO 2

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #2 Basic Methods - Define flow control and describe the three basic methods used in connection oriented networking. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 07/01/2013	**Exam/Test/Quiz -** Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. Define flow control and describe the three basic methods used in connection oriented networking. **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met I think the outcome was very satisfactory. Out of the 12 students taking the exam 84% met the standards that Cisco requires. I think the Packet Tracer demonstrated in lecture seemed to help a great deal. (09/15/2015) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to discuss and demonstrate the concept of flow control as it relates to converged networks under TCP . (05/02/2016) **Action Category:** Teaching Strategies
SLO #4 Comparing Protocols - Compare TCP/IP protocols to the ISO reference model layer four. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 07/01/2013	**Multiple Assessments -** Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. Compare TCP/IP protocols to the ISO reference model layer four (Transport). **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met I think the outcome was satisfactory. Out of the 15 students taking the exam 86% met the standards that Cisco requires. I think Cisco's simulated curriculum that shows the TCP conversation animation in the curriculum helped explain the process. (09/15/2015) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to discuss to show examples connection-oriented vs. connection-less protocols and activities. (05/02/2016) **Action Category:** Teaching Strategies

ECC: CIS 143:Accessing the WAN - CISCO 4

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #4 Configuring Routers - Configure hardware and software for routers to use both LAN and WAN protocols. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Laboratory Project/Report -** Skills-Based Assessment: To complete the assessment, students must complete the following tasks: • Cable a network according to the topology diagram • Erase the startup configuration and reload a router to the default state • Perform basic configuration tasks on a router • Configure and activate interfaces • Configure and activate serial interfaces (PPP with CHAP, HDLC, and Frame Relay) • Configure RIP on all the routers • Configure basic router security • Configure ACLs • Configure basic NAT **Standard and Target for Success:** It is expected that 60% of the students will complete and score 70% or higher on the Skills-Based Assessment **Related Documents:** EWAN_Student_Lab_Skills_Based_Assessment.pdf	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Met 11 of the 16 registered students completed the Skills Based Assessment successfully. The average was 69%. The above results indicate that students, who are engaged, study the curriculum and do the supplied lab activities will be able to successfully complete the Skills Based Assessment which requires a full understanding of the material that was presented during the course and are represented in the SLO Assessments. The most important finding is that the level of engagement. Students, who are engaged, complete the course and perform well on the Skills Based Assessment. The challenge is gaining a higher degree of engagement. A course such as this requires a high degree of student interaction with the technology and that degree of interaction is difficult in an online class. The results indicate that an on-campus class format would provide a higher completion rate. (12/04/2014) **Faculty Assessment Leader:** B. Saichek **Reviewer's Comments:** Since the action plan recommended above cannot be implemented until Fall Semester 2015, the follow-up to the action will need to be observed after the next semester that the course is offered.	**Action:** The results show that there is a low retention rate in CIS-143. The low retention rate is typical for many online classes. But, the results also indicate that the enrolled students who took the Skills Based Assessment completed it successfully. This indicates that the Skills Based Assessment is a good representation of the SLO goals and skills attained during the course of the class. Therefore, the action is to change the class delivery from online to on-campus (08/24/2015) **Action Category:** Teaching Strategies
	Exam/Test/Quiz - Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. They were	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met In this situation the outcome was satisfactory, but we will continue to strive for a higher percentage. Ten students	**Action:** Continue to focus on router issues as they relate to Enterprise Networks. (09/14/2016) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	asked to identify and list major Router Issues and select a solution. **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	took the exam. Out of the 10 students taking the exam 90% to them meet the standards that Cisco requires. I think continue to focus on the major router issues on Enterprise Networks as they relate to the Cisco CCNA program will produce good results. (01/26/2016) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to focus on router issues as they relate to other Networking equipment such as Cisco Catalyst Switches. (09/14/2016) **Action Category:** Teaching Strategies
SLO #5 Configuring Protocols - Configure TCP/IP and AppleTalk protocols. Manage traffic with access lists. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Laboratory Project/Report -** Skills-Based Assessment: To complete the assessment, students must complete the following tasks: • Cable a network according to the topology diagram • Erase the startup configuration and reload a router to the default state • Perform basic configuration tasks on a router • Configure and activate interfaces • Configure and activate serial interfaces (PPP with CHAP, HDLC, and Frame Relay) • Configure RIP on all the routers • Configure basic router security • Configure ACLs • Configure basic NAT **Standard and Target for Success:** It is expected that 60% of the students will complete and score 70% or higher on the Skills-Based Assessment. **Related Documents:** EWAN_Student_Lab_Skills_Based_Assessment.pdf	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Met 11 of the 16 registered students completed the Skills Based Assessment successfully. The average was 69%. The above results indicate that students, who are engaged, study the curriculum and do the supplied lab activities will be able to successfully complete the Skills Based Assessment which requires a full understanding of the material that was presented during the course and are represented in the SLO Assessments. The most important finding is that the level of engagement. Students, who are engaged, complete the course and perform well on the Skills Based Assessment. The challenge is gaining a higher degree of engagement. A course such as this requires a high degree of student interaction with the technology and that degree of interaction is difficult in an online class. The results indicate that an on-campus class format would provide a higher completion rate. (12/04/2014) **Faculty Assessment Leader:** B. Saichek **Reviewer's Comments:** Since the action plan recommended above cannot be implemented until Fall Semester 2015, the follow-up to the action will need to be observed after the next semester that the course is offered.	**Action:** The results show that there is a low retention rate in CIS-143. The low retention rate is typical for many online classes. But, the results also indicate that the enrolled students who took the Skills Based Assessment completed it successfully. This indicates that the Skills Based Assessment is a good representation of the SLO goals and skills attained during the course of the class. Therefore, the action is to change the class delivery from online to on-campus. (08/24/2015) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
	Exam/Test/Quiz - Students were given an objective test which included multiple choice, and a matching simulation with Cisco's Packet Tracer Simulator. Students were asked to configure routers for Lan and Wan access using appropriate addressing and protocols. **Standard and Target for Success:** It is expected that 75% of the students will score 70% or higher to meet standards set by Cisco.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met In this situation, the outcome was satisfactory, but we will continue to strive to reach the 90-100% category. Ten students took the exam. Out of the 10 students taking the exam, 80% of them met the standards that Cisco requires. I think we should continue to focus on the programming LANs with private addressing, and WANs with public inside and outside addressing. (01/26/2016) **Faculty Assessment Leader:** D. Miller	**Action:** Continue to focus on private addressing on LAN routers, and public addressing on WANs. (09/14/2016) **Action Category:** Teaching Strategies **Action:** Continue to focus on router issues as they relate to configuration and addressing issues. (09/14/2016) **Action Category:** Teaching Strategies

ECC: CIS 16:Application Development and Programming Using Visual Basic.Net

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
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. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Exam/Test/Quiz -** Students analyzed an existing Visual Basic software application for a Bookstore and were told they were going to be given the assignment to duplicate the software application for sale to another small bookstore owner. Minor changes would occur in graphics, animations, and database fields, but otherwise the software application would be identical and have the same user interface and features. In groups, they analyzed 5 specific features in the software application to determine which features could be duplicated simply by copying the code written in their textbooks. They were to identify the specific code (program and page). In groups, they were asked that if they only had 1 day to duplicate the software application, to describe: 1) the pros and cons of using the textbook code they identified 2) the merits and drawbacks of collaboration using social media, specifically crowdsourcing They then had to answer T/F questions regarding their analysis: 1) A copyright protects artistic work and software development falls into this category 2) Copies may be made of copyrighted work for teaching purposes	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met Total number of students completing the course: 27 # of students participating # of students meeting standard # of students not meeting standard % of students meeting standard Q/A 24 22 2 92% (12/19/2015) **Faculty Assessment Leader:** M. Chaban	**Action:** All students met the standard. This SLO is already covered in CIS13 and is not appropriate for a programming class. (12/16/2016) **Action Category:** SLO/PLO Assessment Process

Course SLOs	Assessment Method Description	Results	Actions
	3) It is a violation of copyright laws to use code examples without the publishers permission 4) Crowdsourcing can result in communication issues sand possibly missed deadlines 5) Open source software is copyrighted **Standard and Target for Success:** The expected outcome was that the students would understand copyright infringement (covered in CIS13) and issues involved with software collaboration (experienced in the classroom) and 90% would answer the questions correctly.		
SLO #4 Data Driven Application - Create an application utilizing a database to store, modify, delete and retrieve database information for viewing and decision making. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Project -** The students were given a topic of their choice to develop a software application for in Visual Basic. **Standard and Target for Success:** It is expected that 70% of the students will score 80 points or better on the project. **Reviewer's Comments:** Attached Project Descriptions **Related Documents:** CIS16 Fall SLO Data.zip	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Met Total number of students completing the course: 27 # of students participating # of students earning 80+ points # of students with < 80 points % of students meeting standard Project 23 20 3 87% (12/19/2015) **Faculty Assessment Leader:** M. Chaban	**Action:** Of the 3 that did not meet the standard, they did not provide all of the elements requested in the project outline. More time should be spent reviewing the elements expected in the project so all students are clear on the expectations. This is important in project development. (12/16/2016) **Action Category:** Teaching Strategies

ECC: CIS 19:Internet, Security and the Web

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #3 Attacks - Assess the likelihood of an attack on a local area network and set up a recovery plan. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Laboratory Project/Report -** Multiple Lab Assignments spread throughout the semester to test student comprehension of Local Area Network and recovery plans. **Standard and Target for Success:** It is expected that 70% of students will score 70% or above on this SLO.	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met A total of 10 students took this assessment. 2 students (20% students) got between 90% and 100%. 3 students (30% students) got between 80% and 89%. 1 students (10% students) got between 70% and 79%. 3 students (30% students) got between 60% and 69%. 1 students (10% students) got between 0% and 59%. Overall, 6 students (60% students) got 70% or above on this SLO. While students were generally able to comprehend the concept of Denial of Service (DOS) Attacks, there were issues in properly understanding the various approaches involved in the choice of recovery plans in relation to Denial of Service Attacks on a Local Area Network (LAN). This is a difficult concept to understand in the sense that real-life work experience is required, and even seasoned Information Technology professionals struggle in choosing the proper Disaster recovery plan. In the future, instructional videos and/or a field trip to a local company would assist in meeting the standard of this SLO. (01/10/2016) **Faculty Assessment Leader:** J. Siddiqui	**Action:** Students seemed to have trouble in distinguishing between Denial of Service (DOS) Attacks and other types of attacks such as Trojan Attacks. More time and effort needs to be dedicated to clarify the concepts and scope of various Local Area Network issues and their associated threats. (05/08/2017) **Action Category:** Teaching Strategies
		Semester and Year Assessment Conducted: 2014-15 (Spring 2015) **Standard Met? :** Standard Not Met A total of 20 students took this assessment. 4 students (20% students) got between 90% and 100%. 6 students (30% students) got between 80% and 89%. 3 students (15% students) got between 70% and 79%. 4 students (20% students) got between 60% and 69%. 3 students (15% students) got between 0% and 59%. Overall, 13 students (65% students) got 70% or above on	**Action:** Students seemed to have trouble in distinguishing between Local Area Network and other networks such as Metropolitan Area Network. More time and effort needs to be dedicated to clarify the concepts and scope of various computer networks and their associated issues. (04/08/2016) **Action Category:** Teaching Strategies

Course SLOs	Assessment Method Description	Results	Actions
		this SLO. While students were generally able to comprehend the concept of Local Area Network (LAN), there were issues in properly understanding the various approaches involved in the choice of recovery plans. This is a difficult concept to understand in the sense that real-life work experience is required, and even seasoned Information Technology professionals struggle in choosing the proper recovery plan. In the future, an instructional video or a field trip to a local company would assist in meeting the standard of this SLO. (08/20/2015) **Faculty Assessment Leader:** J. Siddiqui	
		Semester and Year Assessment Conducted: 2014-15 (Fall 2014) **Standard Met? :** Standard Not Met A total of 22 students took this assessment. 4 students (18% students) got between 90% and 100%. 6 students (27% students) got between 80% and 89%. 4 students (18% students) got between 70% and 79%. 5 students (23% students) got between 60% and 69%. 3 students (14% students) got between 0% and 59%. Overall, 14 students (63% students) got 70% or above on this SLO. While students were generally able to comprehend the concept of Local Area Network (LAN), there were issues in properly understanding the various approaches involved in the choice of recovery plans. This is a difficult concept to understand in the sense that real-life work experience is required, and even seasoned Information Technology professionals struggle in choosing the proper recovery plan. In the future, an instructional video or a field trip to a local company would assist in meeting the standard of this SLO. (01/22/2015) **Faculty Assessment Leader:** J. Siddiqui	**Action:** Students seemed to have trouble in distinguishing between Local Area Network and other networks such as Wide Area Network. More time and effort needs to be dedicated to explain the concept and scale of various computer networks and their associated threats. (12/05/2015) **Action Category:** Teaching Strategies

ECC: CIS 26:Using Microsoft Excel

Course SLOs	*Assessment Method Description*	*Results*	*Actions*
SLO #4 Testing for Logic and Errors - Given an in-class assignment, demonstrate proficiency in array processing of spreadsheet formulas, table structures, and database ("D") functions. **Course SLO Status:** Active **Course SLO Assessment Cycle:** 2015-16 (Fall 2015) **Input Date:** 11/12/2013	**Laboratory Project/Report -** Students are given a handout assignment that has four main sections. The first is to create array processing, doing both consolidation of multiple formulas into one cell and dispersing a single formula into many cells. The second is to create a variety of one-dimensional tables and then two dimensional tables. The third is to take a list of data (a 'database' in Excel) and to create various reports using advanced filtering using Boolean logic (AND/OR) and Excel's built-in 'Database', 'Criteria', and 'Extract' names – and then to repeat the similar reports using Excel's database functions. The fourth and final section creates on one-dimension table that uses Boolean logic, database functions, and manipulation of the MONTH argument of the DATE function. **Standard and Target for Success:** Based on percentages, it is expected that 60% (or more) of the class will complete the assignment. **Related Documents:** CIS26 Tables Tutorial 2015.docx	**Semester and Year Assessment Conducted:** 2014-15 (Fall 2014) **Standard Met? :** Standard Met 83% of the class (15 out of 18 students) completed the assignment. (11/13/2014) **Faculty Assessment Leader:** D. Barton	**Action:** This project typically has the lowest success rates of any assignment, sometimes falling as low as 24%. Accordingly, the handout is continuously revised (the attached document is for next semester). More importantly, in this semester an additional lecture and lab were devoted to building student success. Each student often has their own "Ahah!" moment when they 'get' the concept of tables and arrays, and those moments occur at different times. (04/09/2015) **Action Category:** Teaching Strategies **Follow-Up:** The extra lab period this semester allowed the instructor and lab assistant to work with students would not have completed the assignment in previous semesters. The one-on-one environment provided by the extra lab has been incorporated into the draft syllabus for Spring 2015. (01/27/2015)
	Laboratory Project/Report - Students are given a lab project in which they must build array formulas, and use database	**Semester and Year Assessment Conducted:** 2015-16 (Fall 2015) **Standard Met? :** Standard Not Met 79% of the students scored 75% or above on this SLO. Based	**Action:** I will use more examples in lab, and spend more lecture time on this area. (05/12/2016) **Action Category:** Teaching

Course SLOs	Assessment Method Description	Results	Actions
	functions efficiently. **Standard and Target for Success:** It is expected that 85% of the students will score 75% or above on this SLO.	on the percentages I was 2 students away from achieving the goal of 85% of students scoring 75% or above. Out of the 19 assignments that were turned in only 15 were 75% or better. One pattern that I noticed is that the students who met the goal on the assignment actually all scored 90% or better. (11/03/2015) **Faculty Assessment Leader:** R. Perkins	Strategies