

Los Angeles Southwest College

Program Review

2010

Program: Computer Science - Information Technology

Initiator: Majid Haghoo, James Haicks, Naja El Khoury

Reviewer 1: Glenn Yoshida

Reviewer 2: Angela Jenks

Date first draft of review was completed by initiator: 10/14/2010 (Haghoo)

Date second draft of review was completed by initiator: 4/8/11 (Haghoo, Hicks, El Khoury)

Instructions:

- Please answer all relevant areas as thoroughly as possible. Click on hyperlinks (indicated with an underline) to access additional information and instructions.
- **IF A PARTICULAR MODULE OR QUESTION DOES NOT APPLY, PLEASE INDICATE BY WRITING IN LARGE CAPITAL LETTERS: "NA"**
- The initiator should collaborate with as many department/program members as possible while completing the review.
- Reviewers should give as much feedback as necessary.

WE THE UNDERSIGNED CERTIFY WE HAVE READ THIS PROGRAM REVIEW AND ACCEPT IT AS ADEQUATE AND COMPLETE.

Department Chair

Date

Dean

Date

Vice-President

Date

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Overview of Program Mission

Describe the program's mission as it relates to the [college's mission](#).

The Computer Science - Information Technology (CSIT) program's mission is to educate students:

1. To prepare them to continue their education in a four-year university, or
2. To train them as an entry-level computer professional

Module One: Enrollment Trends

Enrollment

	2007-2008	2008-2009	2009-2010
Day	728	1,052	874
Evening	129	113	230
Total	857	1,165	1,104

Average Class Size

	2007-2008	2008-2009	2009-2010
Day	31.7	43.8	39.7
Evening	25.8	28.3	32.9
Total	30.6	41.6	38.1

1.0 Describe the trends in **enrollment and average class size**.

1. Enrollment is steady and strong. Enrollment has increased by 29% over three years.
2. Average class size has increased to nearly the maximum number of workstations available (40).
3. The program is viable and strong but must continue to meet increasing demand.

1.1 Given the data, what are the implications of these trends for your program? What must be done differently or kept the same given these trends?

1. The program may need to be expanded to accommodate this steady increase in enrollment. The curriculum should be kept up-to-date and relevant to the market needs.
2. Lab equipment must also be expanded and upgraded to keep up with technological changes.

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Objective for Module One

Write an objective, if applicable, to address the identified trends. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	Ensure access for an increasing student population. This objective is linked to Strategic Goal 1.
Planned Activities	<ul style="list-style-type: none">• Update curriculum regularly to reflect latest changes and trends• Develop new certificate program• Advertise the program and certificates• Create supplement information for students such as "Course Chart"• Make the discipline Web page informative and keep it current• Update lab with latest hardware and software• Keep labs and classes clean
Individual Responsible	CSIT Faculty
Start Date	On going
Method of Evaluation	Review of relevant data (like those listed above)

Module Two: Demographics and Student Success

Ethnicity

Ethnicity (%)	2007-2008	2008-2009	2009-2010
Asian	0.9%	0.5%	0.9%
Black/African American	68.7%	63.7%	66.7%
Hispanic	25.0%	23.1%	24.5%
Native American	0.1%	0.3%	0.4%
Pacific Islander	0.1%	0.4%	0.4%
Caucasian/White	0.6%	0.3%	1.2%
Other	1.1%	0.9%	0.7%
Unknown/Decline To State	3.5%	10.7%	5.3%

2.0 Given the data, describe the trend in **ethnicity**. What are the implications for your program?

The data suggest there is a slight increase in the non-Hispanic and non-Black/African American populations, while the Hispanic and Black/African American population is relatively constant over the three academic years. Almost 91% of the student population is Black/African American or Hispanic and this suggests that our programs should target these special populations.

Age

Age Group	2007-2008	2008-2009	2009-2010
19 and under	42.9%	40.9%	41.2%
20-24	19.8%	22.8%	19.8%
25-29	9.1%	8.9%	9.7%
30-34	6.4%	8.4%	5.9%
35-39	6.4%	5.1%	5.3%
40-49	10.2%	8.2%	10.8%
50+	5.1%	5.6%	7.3%

Gender

Gender	2007-2008	2008-2009	2009-2010
Female	59.3%	63.0%	58.9%
Male	40.7%	37.0%	41.1%

- 2.1 Given the data, describe the trends in **age and gender**. To what do you attribute the age and gender patterns?

The age and gender trends suggest that we serve more young females to the tune of 61%. This trend is probably attributed to the plight of young Black/African American and Hispanic males in the communities surrounding the College.

Retention

To access retention data according to ethnicity, gender, or age group, click [here](#).

	2007-2008	2008-2009	2009-2010
% Day	83.2%	86.3%	87.3%
% Evening	94.6%	85.8%	84.3%
% Total	84.9%	86.3%	86.7%

- 2.2 Given the data, describe the trend in **retention** that can be identified. What are the implications for your program?

CSIT's goal retention rate is between 75-85%. We maintained slightly more than 85% retention rate in both the evening & day programs, which is above the goal established by CSIT. However, retention in the evening program is slightly declining. CSIT will focus more on the evening program to bring up the retention.

Success Rates

To access success rate data according to ethnicity, gender, or age group, click [here](#).

	2007-2008	2008-2009	2009-2010
% Day	54.3%	52.9%	64.0%
% Evening	70.5%	61.9%	59.1%
% Total	56.7%	53.8%	63.0%

- 2.3 Given the data, describe the trend in **successful course completion** rates.

The Discipline set a success rate goal of 75-85%. The data suggest that we are far below that level with an average of 55%. Additionally, the data suggest that there is a steady decline in the success rate of the evening program.

2.3.1 To what do you attribute this trend in successful course completion? Include any observations from the classroom, school, or community environments.

With respect to the evening program, this trend can be directly attributed to the lack of a variety in course offerings and the lack of inspiring, motivating and committed instructors teaching in the evening. The Discipline offers virtually no courses beyond the basic computer literacy courses in the evening.

2.3.2 What are the implications of this trend in successful course completion for your program?

With respect to the day program, there is a 10% jump between 2007-2008 and 2009-2010. This increase is directly attributed to the addition of 1 new faculty member and the offering of more relevant courses. These new courses are not offered and this new instructor does not teach in the evening.

Degrees and Certificates Awarded

	2007-2008	2008-2009	2009-2010
Degrees	0	2	1
Certificates	0	0	0
Skills Certificates	0	0	0

2.4 Given the data, describe the trend in **degrees and certificates** awarded.

Three degrees have been awarded in the last three years. However, the program should make efforts to improve these numbers.

2.4.1 To what do you attribute this trend in degrees and certificates awarded? Include any observations from the classroom, school, or community environments.

Students are not majoring in Computer Science & Related Technologies. This is a national trend and the primary reason why there is a national emphasis on STEM programs. To help reverse this trend, the Discipline is pursuing STEM related programs and grants. We are currently offering more certificate programs in the hope of attracting more students to the Discipline.

2.4.2 What are the implications of this trend in degrees and certificates awarded for your program?

This trend suggests that the Discipline is not fulfilling its mission of addressing the technological needs of its student population. Also, the problem is compounded given the "technology Tsunami" sweeping the world and permeating every aspect of our society.

Objective for Module Two

Write an objective, if applicable, to address the identified trends. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	To increase the number of degrees, certificates and skills certificate by a factor of no less than 25 by Spring 2013.
Planned Activities	<ol style="list-style-type: none"> 1. Develop 2-3 new certificate programs 2. Develop 1-2 skills certificate programs 3. Continue to update course outlines 4. Respond to STEM grant proposals 5. Team up with local high schools on STEM related projects 6. Work with the TECH PREP program to recruit more high school students 7. Re-energize the student chapter of the ACM computer club and recruit student to join.
Individual Responsible	CSIT Faculty
Start Date	On going
Method of Evaluation	Gather and review relevant data in 12 months and at the end of each semester survey students.

Objective	To increase enrollment and student success in evening classes.
Planned Activities	<ol style="list-style-type: none"> 1. Increase the number of courses offered in the evening. 2. Advocate for evening classes to not be cut from the course schedule. 3. Recruit part-time instructors with special knowledge in the field to teach in the evening program.
Individual Responsible	CSIT Faculty
Start Date	On going
Method of Evaluation	The gap between day and evening enrollment and student success will be reduced.

Module Three: Program Resources

3.0 Discuss any needs in facilities, equipment, and/or supplies to support program goals. If requesting additional support, develop an objective.

- Resource availability is important to the success of the program. CSIT defines resources as: adequate facility – lab, up-to-date equipment – hardware, faculty, and student workers assisting faculty in classroom. The following is an outline of resources needed:
 - Lab: at least 2 additional labs
 - Equipment: 100 new PCs
 - Faculty: 2 new faculties
 - Student workers: 4 student workers.
- General lab maintenance (current hardware, software), cleaning lab
- Networking Program (681, 682) specialized Lab, 20 units
- Forensics lab (641, 642, 643), specialized Lab, 25units, specialized forensics hardware
- Gaming program (640, 6x1, 6x2, 6x3), Robust high-end computer, dual monitor, 25 units
- Security program equipments, hardware, software (credit, not for credit)
- Green Technology equipments, hardware, software

WSCH per FTEF

Discipline	2007	2008	2009
CSIT	530	654	542

3.1 Given the data, describe the trend in [WSCH per FTEF](#).

Our data is very close to the standard of 525.

3.1.1 Describe how this trend will impact your program. Does the program make effective use of its personnel? Include any need for increasing or reducing your program faculty.

This factor is above the standard and the trend is overall increasing according to the data. Therefore to maintain this trend, additional faculty will be required to fulfill the requirements of the above programs. To keep WSCH per FTEF consistent with the standard, more faculty will be required.

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3.2 List each faculty member in your program. Mark all professional development activities engaged in by each faculty member in your program since Fall 2005. (To add additional rows: Hit “Tab” at the end of the last row to add an additional blank row. Select the text and check boxes from the row above and press “Edit-Copy.” Click on the blank row and press “Edit-Paste”.)

Name	Activities (Mark all that apply)	Comments (Optional)
James Hicks	<input checked="" type="checkbox"/> Conferences <input checked="" type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input checked="" type="checkbox"/> Grants <input checked="" type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
Majid Haghoo	<input checked="" type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input checked="" type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
Naja El Khoury	<input checked="" type="checkbox"/> Conferences <input checked="" type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input checked="" type="checkbox"/> Grants <input checked="" type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
Asberry Foreman	<input type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
Alphonsus Ayetin	<input type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
John Bowman	<input checked="" type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	In addition to CSIT program, he is very active with Law program at LASC.
Hillard Holland	<input checked="" type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input type="checkbox"/> On-Campus Presentations <input type="checkbox"/> Other	

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Charles Childress	<input type="checkbox"/> Conferences <input type="checkbox"/> Off-Campus Presentations <input type="checkbox"/> Publications <input type="checkbox"/> Grants <input type="checkbox"/> On-Campus Presentations <input checked="" type="checkbox"/> Other	
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Objective for Module Three

Write an objective, if applicable, to address the identified trends. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	
Planned Activities	
Individual Responsible	
Start Date	
Method of Evaluation	

Module Four: Educational Programs

4.0 Identify all program courses listed in the [catalog](#) that are due to be updated (i.e., course outlines were last updated in 2006 or earlier). Describe plans for updating these outlines. Click [here](#) to access the most recent course outline summary that lists LASC courses and their update status. (To add additional rows: Hit “Tab” at the end of the last row to add an additional blank row. Select the boxes from the row above and press “Edit-Copy.” Click on the blank row and press “Edit-Paste”.)

Outdated Course	Last Updated	Plan for Updating	Update completion deadline
CSIT 617	03-04	To be updated by the end of the Spring 2011 semester by Professor Haghoo	May 2011
CSIT 622	04-05	To be updated by the end of the Spring 2011 semester by Professor Hicks	April 2011
CSIT 623	05-06	To be updated by the end of the Spring 2011 semester by Professor Hicks	May 2011
CSIT 632	1990	To be updated by the end of the Spring 2011 semester by Professor El Khoury	May 2011
CSIT 636	00-01	To be updated by the end of the Spring 2011 semester by Professor Hicks	June 2011
CSIT 639	No data	To be updated by the end of the Spring 2011 semester by Professor Hicks	September 2011
CSIT 660	No data	To be updated by the end of the Spring 2011 semester by Professor El Khoury	June 2011
CSIT 688	No data	To be updated by the end of the Fall 2012 semester by Professor Hicks	October 2011

4.1 For courses that have not been offered in over three years, identify your plans for the upcoming year. Provide justification or extenuating circumstances to keep these inactive courses listed. (**Note:** All course changes, additions, and removals must be approved by the Curriculum Committee.) Click [here](#) for a list of courses that have not been offered since Fall 2007. (To add additional rows: Hit “Tab” at the end of the last row to add an additional blank row. Select the text and check boxes from the row above and press “Edit-Copy.” Click on the blank row and press “Edit-Paste”.)

Inactive Course	Action	Comments
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CSIT 636	<input type="checkbox"/> Recommend Archive <input checked="" type="checkbox"/> Remain listed <input type="checkbox"/> Other (please detail):	
CSIT 688	<input type="checkbox"/> Recommend Archive <input checked="" type="checkbox"/> Remain listed <input type="checkbox"/> Other (please detail):	
CSIT 185 (Directed Study)	<input type="checkbox"/> Recommend Archive <input checked="" type="checkbox"/> Remain listed <input type="checkbox"/> Other (please detail):	
CSIT 285 (Directed Study)	<input type="checkbox"/> Recommend Archive <input checked="" type="checkbox"/> Remain listed <input type="checkbox"/> Other (please detail):	
CSIT 385 (Directed Study)	<input type="checkbox"/> Recommend Archive <input checked="" type="checkbox"/> Remain listed <input type="checkbox"/> Other (please detail):	

4.2 Enter new courses that are planned. (**Note:** All course changes, additions, and removals must be approved by the Curriculum Committee.) (To add additional rows: Hit “Tab” at the end of the last row to add an additional blank row. Select the text and check boxes from the row above and press “Edit-Copy.” Click on the blank row and press “Edit-Paste”.)

New Course	Justification (check all that apply)
683: Principal of Information Security	<input checked="" type="checkbox"/> Advisory committee <input type="checkbox"/> Prerequisites <input checked="" type="checkbox"/> Integration of technology <input checked="" type="checkbox"/> Similar CSU/UC lower division requirements <input checked="" type="checkbox"/> Course needed for sequence <input checked="" type="checkbox"/> Integrating current trends and new information <input type="checkbox"/> Other (please detail):
642: Computer Forensics II	<input checked="" type="checkbox"/> Advisory committee <input type="checkbox"/> Prerequisites <input checked="" type="checkbox"/> Integration of technology

	<input checked="" type="checkbox"/> Similar CSU/UC lower division requirements <input checked="" type="checkbox"/> Course needed for sequence <input checked="" type="checkbox"/> Integrating current trends and new information <input type="checkbox"/> Other (please detail):
643: Computer Forensics, Using Encase Software	<input checked="" type="checkbox"/> Advisory committee <input type="checkbox"/> Prerequisites <input checked="" type="checkbox"/> Integration of technology <input checked="" type="checkbox"/> Similar CSU/UC lower division requirements <input checked="" type="checkbox"/> Course needed for sequence <input checked="" type="checkbox"/> Integrating current trends and new information <input type="checkbox"/> Other (please detail):
600: Practical PC and Career Technologies	<input type="checkbox"/> Advisory committee <input checked="" type="checkbox"/> Prerequisites (For practical reason) <input type="checkbox"/> Integration of technology <input type="checkbox"/> Similar CSU/UC lower division requirements <input type="checkbox"/> Course needed for sequence <input type="checkbox"/> Integrating current trends and new information <input type="checkbox"/> Other (please detail):

4.3 Vocational Programs (if applicable; if not, skip to Objective for Module Four)

4.3.1 How does your program meet **labor market demand**? Cite specific examples and sources.

According to the United States Bureau of Labor Statistics' HIRING TRENDS/JOB OUTLOOK, Computer Forensics Technician is one of the 10 Fastest Growing Occupations for College Grads. There are over 1000 Certified Computer Forensics Examiners (CCFE) certified as of July, 2009. Computer forensic jobs are positioned to grow faster with more jobs opening in law enforcement agencies and corporations. With college degrees available now growth in the industry will continue to grow. More and more jobs are opening up for Computer Forensics; it is a fast growing industry with a strong looking future.

4.3.2 Do your program have an **advisory board**? How often does your advisory board meet? When was the last meeting? List outcome(s) of your advisory board meetings.

The Program has an advisory board which meets in May and December of each year. The last meeting was held in May 2010. The following were among the list of outcomes from the last advisory board meeting:

1. All courses should contain an awareness component on security.
2. Add the proposed certificate programs: IT Security, Computer Forensics, Webmaster

<p>Design</p> <ol style="list-style-type: none"> 3. Upgrade the hardware workstations in both labs 4. Secure high-ended hardware for the Gaming certificate 5. Secure industry approved furniture & equipment for the Computer Forensics certificate

4.3.3 What **employment data** do you have that demonstrates the effectiveness of your program?

<p>None.</p>

Objective for Module Four

Write an objective, if applicable, to address the identified trends. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	To strengthen the AS & AA degree program and to fulfill the requirements of industry by offering industry-specific and relevant certificate programs
Planned Activities	<ol style="list-style-type: none"> 1. Update outstanding outlines (CSIT 617, 622, 623, 632, 636, 639, 660 & 688) 2. Submit to Curriculum Committee outlines for new courses (CSIT 683, 642, 643 & 600) 3. Invite related industries personnel to speak to classes as guest lecturers 4. Schedule CSIT 636 within the next academic year 5. Schedule industry relevant courses through certificate programs
Individual Responsible	CSIT Faculty
Start Date	Spring 2011
Method of Evaluation	Over the course of an academic year, observing that all outlines have been successfully updated; count the number of guest speakers invited and counting the number of students enrolled in certificate programs.

Module Five: Student Learning Outcomes (SLOs)

- 5.0 Identify 2-5 [student learning outcomes](#) for each of the **degree programs** you offer and provide an [assessment strategy](#) for each outcome. In the following chart,
- Indicate the assessment strategy and when assessment will occur (Fall 2010/Spring 2011)
 - If any of your program SLOs were already assessed, include analysis of assessment results and plans for improvement of teaching and learning. Include overall results from program faculty dialogue (attach minutes from meetings as evidence of this dialog).

LASC Institutional SLOs

1. Communication (Oral and Written Skills)
 - use language (oral and written) and non-verbal modes of communication appropriate to the audience and purpose.
2. Cognition (Reading Comprehension, Computational Skills, and Critical Thinking)
 - use critical thinking and computational skills to analyze, synthesize, and evaluate ideas and information.
3. Information Competency (Information Competency and Technological Literacy)
 - utilize research skills necessary to achieve educational, professional, and personal objectives.
4. Social Responsibility (Responsible Citizenship and Valuing Diversity)
 - demonstrate sensitivity to and respect for others and participate actively in group and civic decision making.
5. Personal and Professional Development (Employability and Confidence Building)
 - demonstrate self-management, maturity, and growth through practices that promote physical, mental, and emotional well-being.

- If applicable, indicate which Institutional SLO (#1-5) the program SLO is linked to. Click [here](#) for a link to all of the degree/certificate programs that should have at least 2 SLOs. Click [here](#) to see a sample entry for this form.

If your program offers more than one degree, you will need to expand this chart to identify SLOs for each one. To do so, select the entire chart and press “Edit-Copy.” Click in the blank space below the original chart and press “Edit-Paste.”

Program Title: AS in CSIT				
Program SLO	Target Courses to be Assessed	Assessment Strategy & Timing	Results and Plans for Improvement (if applicable)	Related Institutional SLO (mark all that apply)
1. Perform computational tasks using operating system environments and develop	CSIT 601, 602, 630, 632	60% of graduates being able transfer to a 4-year institution or be employed in a related field, within one year of graduation.		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5

problem solving algorithms for given tasks.		<input type="checkbox"/> Fall 2010 <input checked="" type="checkbox"/> Spring 2011		
2. Demonstrate application of computer science concepts incorporating the properties of algorithms and linguistics, virtual hardware development and application development	CSIT 602, 636, 608, 639	Passing these courses with a C grade or better <input type="checkbox"/> Fall 2010 <input checked="" type="checkbox"/> Spring 2011		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5

Program Title: AA Liberal Arts in CSIT				
Program SLO	Target Courses to be Assessed	Assessment Strategy & Timing	Results and Plans for Improvement (if applicable)	Related Institutional SLO (mark all that apply)
1. Become well-versed in various career opportunities in IT industry and be able to pursue an employment in computer-related fields as well as enhance their employability.	CSIT 600 & 601	50% of graduates obtaining a job as a result of having computer skills, within one year of graduation. <input type="checkbox"/> Fall 2010 <input checked="" type="checkbox"/> Spring 2011		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5
2. Use Web technologies, mobile devices, and personal computer	CSIT 601, 630, 632	Passing these courses with a C grade or better <input type="checkbox"/> Fall 2010		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input checked="" type="checkbox"/> 5

technologies and apply their acquired technical skills to navigate and establish presence through the use of cyber and social networking.		<input checked="" type="checkbox"/> Spring 2011		
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5.1 List each course in your program as well as each course's SLOs according to the most recent course outline of record. (Click [here](#) to access a master list of all courses and recorded SLOs.) Indicate whether the course SLO ties directly to a program SLO. Indicate whether the course SLO ties directly to an institutional SLO.

If the course ties in to multiple degree programs with separate SLOs, use the text box to describe the relationship between the course SLO, program SLOs, and Institutional SLOs.

To add additional rows for more courses: Hit "Tab" at the end of the last row to add an additional blank row. Select the text and check boxes from the rows above (for the course, three SLOs and check boxes) and press "Edit-Copy." Click on the blank row and press "Edit-Paste".

Course Name, Number, and SLOs	Related Program SLO (mark all that apply)	Related Institutional SLO (mark all that apply)
<p><i>Example:</i></p> <p>Course name: Chemistry 51</p> <p>SLO 1: demonstrate proficiency in performing conversions within the metric or English systems, or between the English and metric systems. (70% meets expectation)</p>	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3
<p>SLO 2: demonstrate proficiency in naming a compound given its chemical formula or vice versa (70% meets expectation)</p>	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3
<p>Course Name: 617</p> <p>SLO 1: (Lecture) Examine and analyze typical assembly language instructions and related topics.</p>	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
<p>SLO 2: (Lab) Design, create, and test a simple assembly language program.</p>	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

Course name: 622	SLO 1 (Lecture) : Identify front-end and back-end Webpage design issues and define the concepts of creative design and branding standards.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Identify the benefits of Dynamic HTML (DHTML) and the Document Object Model (DOM).	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1 (Lab): Create HTML and XHTML pages with horizontal rules, images, browser-safe colors, hyperlinks, tables, Web forms, client-side image maps and frames	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Test processing of Web forms using a public test engine and validate your HTML and XHTML code to W3C standards.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course name: 632	SLO 1: Design, construct, and develop database structures containing fields, tables, and table relationship.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2: Evaluate the created table and compose a query which let them obtain immediate answers to the questions they ask about their data.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course name: 636	SLO 1 (Lecture): Define a template and list examples where they can be used for custom data structures, with the standard operations of insert, replace, retrieve, and remove.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Compare and contrast the differences among the various search techniques (linear, binary, and binary trees).	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

	SLO 3 (Lecture): Explain the difference among various Big- $O(n \lg n)$ sorting algorithms of quick sort, merge sort, Shell sort, and heap sort.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1(Lab): Write a program that creates a template for custom data structures, with the standard operations of insert, replace, retrieve, and remove.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Write a program that implements the various search techniques (linear, binary, and binary trees).	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 3 (Lab): Compare Big- $O(n)$ and Big- $O(n \lg n)$ for the quick sort, merge sort, Shell sort, and heap sort sorting algorithms.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course name: 639	SLO 1 (Lecture): List the various control structures in C/C++ and explain how each works.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Define the concept of an object and describe how objects are constructed in C/C++	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 3 (Lecture): Define the concept of a class and explain how classes are constructed in C/C++.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1(Lab): Diagram the flow of control for each of the control structures in C/C++	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Write a simple program that containing points,	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5

	lines, circle and text objects	<input type="checkbox"/> 3	<input checked="" type="checkbox"/> 3
	SLO 3 (Lab): Write a program that implements a class for the point, line, circle and text objects	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 660	SLO 1: Define an information system and describe its components.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2: Research and explain how the Internet has affected business strategies and relationships	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 681	SLO 1: Select the most appropriate network: either a Client/Server Network or Peer-to-Peer Network and provide justifications.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2: Select the most appropriate LAN topology best suited for the design and the type of media and explain the reasons for their choices.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 3
	SLO 3: Construct a 6 foot straight-through and cross-over network media cable and test it for problems using a cable tester.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 682	SLO 1: Prepare, install, and configure a Network Operating System (NOS) server and client components.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 3
	SLO 2: Prepare and compose a disaster recovery plan including contingencies strategy arrangement.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

Course Name: 688	SLO 1: Develop an application that integrates a word processing component, a database component and a presentation component with a customized user interface developed in Visual Basic.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 3
	SLO 2: Develop an algorithm to solve a specific problem (identified by the instructor), refine your algorithm, implement your algorithm in the most efficient programming language available to you, test and analyze the program for efficiency, document the program and prepare the entire package to be delivered professionally	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 602	SLO 1 (Lecture): Using the concept of an algorithm, define computer science as a scientific discipline.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Distinguish between analog and digital information, related it to data compression, and develop a formula for calculating the compression ratio.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1 (Lab): Develop an algorithm for baking a chocolate cake.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Describe the computer problem-solving process and apply this process to obtain the solution to a deterministic problem.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

Course Name: 621	SLO 1 (Lecture): Identify three Internet protocols and explain how each relates to an End-User Internet experience (Internet application)	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Explain how browser plug-ins and add-ons work to enhance a user's Web-browsing experience.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1 (Lab): Using the standard search function of your favorite browser, perform an Internet search using the Boolean operators AND, OR, and NEAR	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Show how to set the security level of your browser to accept 3 rd party cookies.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 641	SLO 1 (Lecture): Establish a procedure for a corporation on how to verify a new forensics software package.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lecture): Explain the job functions of a computer forensics expert and describe their primary activity at a crime scene.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 1 (Lab): Draw a diagram of the major components one would expect to find in a certified computer forensics laboratory.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
	SLO 2 (Lab): Using imaging software, take an image of a suspect hard drive and show how to secure the original hard drive in the Evidence Cabinet.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3
Course Name: 691	SLO1 (Lab): Use appropriate hardware and software resources in the lab as they pertain to the	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

	completion of specific project(s).		
	SLO2 (Lab): Student should know how this course is structured, its applicability toward graduation credit, how their performance is evaluated, and the number of times this course can be repeated for credit.	<input checked="" type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 5 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 5 <input checked="" type="checkbox"/> 3

- 5.2 Identify 2-5 Student learning Outcomes for any [certificate programs](#) within your area. In the following chart,
- List the certificate program, SLOs, and target courses.
 - Indicate the assessment strategy and when the assessment will occur (**Fall 2010 or Spring 2011**).
 - If any of your program SLOs were already assessed, include analysis of assessment results and plans for improvement of teaching and learning. Include overall results from program faculty dialogue (attach minutes from meeting as evidence).
 - If applicable, indicate which Institutional SLO (#1-5) the program SLO is linked to.

If your program offers more than one certificate, you will need to expand this chart to identify SLOs for each one. To do so, select the entire chart and press “Edit-Copy.” Click in the blank space below the original chart and press “Edit-Paste.”

Certificate Program and SLO	Target Courses	Assessment Strategy & Timing	Results and Plans for Improvement (if applicable)	Related Institutional SLO (mark all that apply)
Name of Certificate Program: Certified Internet Webmaster Associate	CSIT 621, 622, 623	Students complete these courses with a grade of B or better; or students pass the course assessment test with a grade of 80 or better.		
SLO 1: Students become capable of producing real-world Internet applications, can use common Internet-ready	CSIT 621, 622, 623	70% students taking the certificate test and passing the exam with 80% or better. <input type="checkbox"/> Fall 2010 <input checked="" type="checkbox"/> Spring 2011		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5

applications, and can create properly formed HTML/XHTML documents				
SLO 2: Students will know CGI and database essentials, and be able to troubleshoot networks.	CSIT 622	70% students taking the certificate test and passing the exam with 80% or better. <input type="checkbox"/> Fall 2010 <input checked="" type="checkbox"/> Spring 2011		<input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> 5

5.3 How are course and/or program student learning outcomes communicated to students?

Syllabus, Orientation, 1st day meeting, periodically throughout the course. Also, through posters displayed in the computer labs.

5.3.1 How do you measure whether students understand what the outcomes mean?

By projects, review exercises, all related to real world activities. Also, through direct questioning on tests.

5.3.2 If applicable, how can students self-assess using rubrics, etc. in relation to the SLOs.

Some courses have self assessment tools and component modules built in them; others, through practice assessments, all instructors are encouraged to give practice assessments

5.4 How will the results of assessment be used for planning and decision-making? How were the results discussed both internal and external to your program? Did students participate in the reviews of outcomes, criteria, curriculum design, or related activities? If so, describe.

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Results of the assessments will be used for planning improvement to enhance the quality of the program. In the future, when assessments are completed, they will be discussed in the department meetings. Additionally, through the discipline’s weekly meetings to develop/discuss/enhance SLO.

Objective for Module Five

Write an objective, if applicable, to address future plans to develop, assess, and/or improve Student Learning Outcomes. List any objectives resulting from SLO assessment analysis. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	To make SLO activities an ongoing weekly process with contributions from all faculty members.
Planned Activities	<ol style="list-style-type: none"> 1. Meet weekly to develop/discuss/revise Discipline/Program/Course level SLO; a different SLO each week. 2. Meet weekly to develop/discuss/revise assessment strategy for a target SLO (item 1 above) 3. Meet weekly to develop/discuss/revise the improvement plan for a target SLO (item 1 above)
Individual Responsible	CSIT faculty
Start Date	Ongoing
Method of Evaluation	Review data at the end of each semester

Module Six: Student Feedback

6.0 Data collection

6.0.1 How many surveys were collected from students?

No data currently is available.

6.0.2 How many students participated in focus groups?

6.0.3 How many students participated in interviews?

6.0.4 How many students participated in other activities in which students provided feedback to your program? Describe these activities.

6.1 Describe the results of the data accumulated in the above methods.

Objective for Module Six

Write an objective, if applicable, to address student feedback and concerns. Objectives should be linked to the LASC [Strategic Planning Goals](#).

Objective	Gather Students' feedback
Planned Activities	Survey students every semester. This data should be collected but not be used as faculty evaluation. (Faculty evaluation is important but it is a different matter). The data will be used to show how to improve the educational program.
Individual Responsible	CSIT Faculty
Start Date	Spring 2011
Method of Evaluation	Surveys, forums, focus groups

Module Seven: SWOC

Based on your program review, summarize:

Program Strengths

Strong, experience, knowledgeable, and caring faculty interested in student success.
Dynamic programs reflecting changes in technologies and marketplace. CSIT is becoming more involved and partnering with professional organizations, like ISSA in the security area, like CIW in Web development area, and IHCA in forensics.

Program Weaknesses

Number of degrees and certificates awarded. All course outlines must be updated. CSIT is expanding number of degree and certificate to include two new certificates: Forensics and IT homeland security.
We are currently updating course outlines, adding new programs and certificates.

Program Opportunities

We have the opportunity to team up with other disciplines, such as CAOT, Psychology, Accounting, and Administration of Justice to offer joint certificates and programs. Additionally, we have the opportunity to reach out to community, high schools, and 4-year colleges and universities.
By expanding program's offering CSIT will be able to meet the labor market demands.

Program Challenges

Find employment for students after they are graduated.

Module Eight: Objectives from 2008-2009 Mini-Review

8.0 List each of the objectives from your program’s 2008-2009 mini-review. (Click [here](#) to access the objectives from the mini-reviews.) Indicate the current status and outcome of each objective. (To add additional rows: Hit “Tab” at the end of the last row to add an additional blank row. Select the text and check boxes from the row above and press “Edit-Copy.” Click on the blank row and press “Edit-Paste”.)

Objective	Status Completed = C In Progress = IP Not Implemented = NI	Outcome If “C” evaluate the result If “IP” evaluate the status and plans for continuation of the objective If “NI” state whether the objective will be pushed to the next year or dropped entirely and the rationale behind the decision
Strengthening our computer science program	<input type="checkbox"/> Completed <input checked="" type="checkbox"/> In Progress <input type="checkbox"/> Not Implemented	We have begun offering more computer science courses, such as 602, 608, 621, and many others. Enrollment is satisfactory.
Main and improve CSIT service courses 601, 630, 691	<input checked="" type="checkbox"/> Completed <input checked="" type="checkbox"/> In Progress <input type="checkbox"/> Not Implemented	This has been achieved but it is a continuous process as well.
Increase CSIT facilities capabilities	<input type="checkbox"/> Completed <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Not Implemented	Currently we still have only two labs. However we are going to have more labs and new kind of labs when we move to renovated Cox building in Fall of 2013.

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Consolidate CSIT and CAOT facilities for more effective use.	<input type="checkbox"/> Completed <input type="checkbox"/> In Progress <input checked="" type="checkbox"/> Not Implemented	Currently we still have separate facilities. However, CSIT and COAT labs will be consolidated when we move to renovated Cox building in Fall of 2013.
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Module Nine: 2010 Program Review Objectives

9.0 Rank and list all objectives that have been developed in this program review.

Rank	Objective	Planned Activities	Individual Responsible	Start Date	End Date
1	To strengthen the AS & AA degree program and to fulfill the requirements of industry by offering industry-specific and relevant certificate programs	--Update outstanding outlines (CSIT 617, 622, 623, 632, 636, 639, 660 & 688) --Submit to Curriculum Committee outlines for new courses (CSIT 683, 642, 643 & 600) --Invite related industries personnel to speak to classes as guest lecturers --Schedule CSIT 636 within the next academic year --Schedule industry relevant courses through certificate programs	CSIT Faculty	Spring 2011	ongoing

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2	To increase the number of degrees, certificates and skills certificate by a factor of no less than 25 by Spring 2013.	<ul style="list-style-type: none"> --Develop 2-3 new certificate programs --Develop 1-2 skills certificate programs --Continue to update course outlines --Respond to STEM grant proposals --Team up with local high schools on STEM related projects --Work with the TECH PREP program to recruit more high school students --Re-energize the student chapter of the ACM computer club and recruit students to join. 	CSIT faculty	Ongoing	ongoing
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3	Ensure access for an increasing student population.	<ul style="list-style-type: none"> --Update curriculum regularly to reflect latest changes and trends --Develop new certificate program --Advertise the program and certificates --Create supplement information for students such as "Course Chart" --Make the discipline Web page informative and keep it current --Update lab with latest hardware and software --Keep labs and classes clean 	CSIT Faculty	ongoing	ongoing
4	Gather Students' feedback	Survey students every semester. This data should be collected but not be used as faculty evaluation. (Faculty evaluation is important but it is a different matter). The data will be used to show how to improve the educational program.	CSIT Faculty	Spring 2011	ongoing

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5	To increase enrollment and student success in evening classes.	<ul style="list-style-type: none"> --Increase the number of courses offered in the evening. --Advocate for evening classes to not be cut from the course schedule. --Recruit part-time instructors with special knowledge in the field to teach in the evening program. 	CSIT faculty	Ongoing	Ongoing
6	To make SLO activities an ongoing weekly process with contributions from all faculty members.	<ul style="list-style-type: none"> --Meet weekly to develop/discuss/revise Discipline/Program/Course level SLO; a different SLO each week. --Meet weekly to develop/discuss/revise assessment strategy for a target SLO (item 1 above) --Meet weekly to develop/discuss/revise the improvement plan for a target SLO (item 1 above) 	CSIT faculty	Ongoing	ongoing

Module Ten: Resource Priority Requests

Note: All resources requests must be linked to a program objective and to a [strategic plan goal/objective](#).

Rank	Resources Requested	Quantity /Units	Program Objective Number Related to this Request	Strategic Goal/Objective Number Related to this Request	Rationale for the Request	Anticipated Total Cost
1.	Workstations to conduct Network Security Certificate	25	1, 2, 3	6	This program requires specialized state-of-the-art hardware	\$20K
2	Two new full-time faculty members	2	2, 5, 3	6	The planned certificate programs require qualified instructor to teach the added workload	\$250K
3	Hardware/Software/Furniture/Supplies to conduct Computer Forensics level II courses	Sufficient for a certified medium size lab	1, 2, 3, 5	6	This program requires specialized state-of-the-art hardware/software/furniture used through the industry	\$75K
4	Program assistants	2	6, 4	6	A lot of Labor Market research and data collection has been done, still more remains. Course outlines need to be constantly updated to keep up with industry requirement and to keep	\$10K

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					certificate programs valid.	
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Concluding Comments and Recommendations

1. Discuss any special program accomplishments or achievements that have not already been addressed.

- A. CSIT was involved with the CyberPatriot program to the tune of training two teams of 7 high school students for national competition in computer security in Washington, DC.
- B. CSIT was instrumental in obtaining the grants that brought thousands of dollars to campus to develop STEM (Science, Technology, Engineering and Mathematics) programs.
- C. CSIT expanded its partnerships with industry, high schools and 4-year educational institutions in developing 2+2+2 programs.
- D. CSIT continues its association with Microsoft to make the Academic Alliance Software program available to students.
- E. CSIT renewed its association with the ACM (Association for Computing Machinery) which brings a Student Chapter of that organization on campus to get more students interested in STEM.

2. Discuss anything else you would like to share about your program that has not already been addressed.

Generally speaking, technology is permeating every aspect of our society and if we are to give our students the competitive edge they need to successfully compete in this global workplace, then we must offer them state-of-the-art, relevant courses and program. This can only be accomplished if we take an aggressive and proactive posture with respect to technology and education on this campus. Not to support a program of this nature would mean to graduate ill-prepared students.

3. List a minimum of (3) recommendations for the program.

1. It is highly recommended that the Program increase its full-time faculty as soon as possible.
2. It is highly recommended that the Program obtain the needed hardware, software, furniture and supplies needed to successfully conduct its new certificate program and develop these into fully articulated AS degree programs.
3. It is highly recommended that the Program jointly offer certificates with the CAOT discipline and add courses from the Administration of Justice, Psychology, and Accounting disciplines to round out its program offerings.
4. It is recommended that the Program obtain additional support staff needed to develop its aggressive, state-of-the-art curricula.

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