Instructional Program Review
Computer Information Science

This document addresses the following SACSCOC requirements: CR 2.5, CS 3.3.1, CS 3.5, and FR 4.1.

Purpose

Amarillo College instructional programs consistently review data and strive for improvement.

The purpose of this review is to demonstrate how AC instructional areas support AC's mission by "*enriching the lives of our students and our community.*"

On an annual basis the Program Review process will capture a holistic view of a department's/program's strengths, weaknesses, and improvement plans based on institutional data and assessment information.

The information collected on this form will also serve to help your division complete the information required by SACSCOC for Amarillo College's continued reaffirmation efforts.

Response Length Suggestion: Most responses should be 2-3 sentences.
If available, you may also provide a link/reference to other documentation that answers each question.

I: Identification

1. **Department or Program Title(s)** (Department Chairs List Dept.; Coordinators List Program)**:**

   Computer Information Systems

2. **Department and/or Program(s) Purpose Statement:**

   The purpose of the Department of Computer Information Systems is four-fold. The first purpose is to provide students – including academic, CE, and those in corporate training -- the necessary knowledge and skills to allow them to excel in careers in information technology. The second is to provide students – including academic, CE, and those in corporate training -- with the necessary knowledge and skills in computer technology to be successful in their career of choice. The third purpose is to provide academic students with the necessary knowledge and skills in computer technology so that they will be able to successfully transfer to a four-year university whether in Information Technology or another field of study. The fourth purpose is to provide customized training, continuing education credit, and certification exams to the community.

3. **Program Review Year (i.e. Most Recent Academic Year)**

   2015

4. **Date of Submission:**

5. *Lead Person Responsible for this Program Review:*

   Name: Dr. Carol Buse
   Title: Chair
   E-mail: acbuse@actx.edu

Phone Number: 806-371-5994

6. Additional Individuals (Name and Title) Responsible for Completing this Program Review:

II: Program Enrollment and Success Data

Use baseline data that will enable you to determine the status of your program (compare the most recent data to previous year data, compare your program to any existing state standards, or consider any other relevant factors). <u>Please use Firefox or Chrome browser to open links.</u>

1. Based on the most recent reported data, please evaluate your program(s).

   A .Overall Program Data (Complete this section <u>if</u> your dept. produces any certificate and/or terminal degree.)
   (Place an 'X' in each text box that corresponds to your evaluation.)

Student Data Reported/Collected	Needs Improvement	Meets Standards	Exceeds Standards	Not Applicable
a. Employment Rates/Wages (EMSI, College Measures, CREWS, Perkins)		X		
b. Completion	X			
c. Licensure Pass Rates				X
d. Retention (FA-SP) and (FA-FA)	X			
e. Grades A-C	X			
f. Annual Enrollment	X			
g. Survey, Focus Group, & Related Data				X

   Based on the data in Part A, respond to the following two questions:
   i. Identify one area in which your program(s) excel.

   Employment Rates and Wages – There are more jobs than we have students

   ii. Identify one area in which your program(s) need to most focus for the next few years.

   Completion

   B. Course-Specific Data (Complete this section to evaluate the courses that fall under your dept./program.)
   (Place an 'X' in each text box that corresponds to your evaluation.)

Student Data Reported/Collected	Needs Improvement	Meets Standards	Exceeds Standards
a. Grades A-C (IDS - Race/Ethnicity)	X		
b. Grades A-C (IDS – Age)	X		
c. Grades A-C (IDS – Gender)	X		
d. Grades A-C (IDS – First Generation)	X		
e. Grades A-C (IDS – Pell)	X		
f. Grades A-C (IDS – Full/Part-Time)	X		
g. Course-level Enrollment (IDS)		X	
h. Survey, Focus Group, & Related Data			

Based on the data in Part B, respond to the following two questions:

    i.   Identify two courses that are doing well.

> COSC 2430 – Programming Techniques and Logic II – A-C across all IDS data
> ITSY 1342 – Information Technology Security – A-C across all IDS data

    ii.   Identify two courses in which your dept./program(s) needs to most focus for the next few years.

> ITSE 2309 – Database Programming – A-C across all IDS data/ This class is extremely difficult and both seated and online students struggle with the course.
> ITSE 1311 – Beginning Web Page Programming – A-C across all IDS data. Mainly the online course needs work.

III: Institutional Initiatives

PART A – No Excuses:

Each department/program is expected to support student success initiatives.

List 1 or more ways your program(s) <u>most</u> focus on any of the <u>No Excuses goals/initiatives</u> and how you have helped AC fulfill its No Excuses goal.

> ■ Successful completion of a degree, certificate or transfer:
> We added short-term, (15 hour Level 1) stackable certificates that students can complete in 9 months.
> We created Fast-Track courses in the CETT degree plan for Cisco 3 and Cisco 4 – Students are able to complete both of these courses in the same semester, with Cisco 3 in the first 8 weeks and Cisco 4 in the 2nd 8 weeks.
> ■ Course Redesign
> We participated in the Course Redesign training and redesigned several courses, primarily the BCIS 1305 course, which is the course that many at the college take (whether majors or not). This course is now part of the academic core. We redesigned the course to include much more student engagement and collaboration, adding a capstone project that emphasizes student's personal and social responsibility in ethical computing.
> All sections of the BCIS 1305 have the same content – including syllabus, book, assignments, exams, videos, discussions, etc. All course content in published on Blackboard and SAM (Cengage) or MyITLab (Pearson)
> ■ Poverty
> We looked at course textbooks to reduce to cost to students. For the BCIS 1305 class, we reduced the cost from over $300 to $100 by changing publishers and using more online resources.
> We provided the Microsoft Office Specialist (MOS) certification exam, an internationally recognized certification, to students at a reduced rate of $65 (rate from Certiport is $100). Additionally, we refund the exam cost to any enrolled student in CIS who passes the exam.

Each department/program is expected to support **AC's Strategic Planning** initiatives.

1. **Identify at least one strategy or task from the Strategic Plan your area(s) currently addresses/evaluates.**

Goal 1: Expand Student Success

   1.4 Align AC learning outcomes with THECB outcomes which emphasize 21st century skills.
      We incorporated the new core and reduced our programs to 60 hours.
      Learning outcomes are pulled from ACGM and WECM.
      We ensure the learning outcomes are implemented by standardizing all multi-section courses with the same syllabus and with all content in Blackboard, Pearson's MyLabs, and SAM's Cengage.

   1.7 Align AC's program offerings with University Baccalaureate degrees.
      We met with WTAMU's dean, department chairs and faculty in the College of Business and developed articulation agreements. We changed our curriculum in the BUSI.AS and BUSI.AS.CIS programs to meet that agreement

Goal 2: Ensure Student Success

   2.1 Explore expansion of services and offerings
      We offered several fast track courses in the CETT degree where the first 8 weeks was one course and the 2nd 8 weeks was another course. Students can take advantage of these shorter course offerings and take more classes in the same amount of time.
      We are currently working on offering a certificate, the Computer System Support (CSS) using the fast track, block scheduling approach where students will be able to receive a Level 1 certificate in one semester.

   2.2 Increase the number of online degree and certificate programs
      We are working on putting the Computer System Support (CSS) certificate as 100% hybrid and offer it as a block, fast-track program. Students will be able to complete this certificate in one semester.

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2. **(If applicable) What additional item(s) should AC's Strategic Plan address?**

PART C– General Education Objectives

SACSCOC requires that the College prove attainment of general education competencies by all students. AC has adopted the below objectives for our core curriculum assessment, but you may add additional objectives you teach. Additionally, AC expects that learning objectives are present and are being evaluated in all courses.

1. Provide a listing of which courses in your department/program(s) teach these general education objectives. For assistance in identifying educational objectives in non-core courses, refer to the ACGM/WECM.

(List individual course prefix, state "all courses", state "N/A" for an objective, etc.):

Objective	Course(s)
Communication Skills	All
Critical Thinking Skills	All
Empirical & Quantitative Skills	BCIS 1305, COSC 1430, ITDF 1300, ITSC 1307
Teamwork	BCIS 1305, BCIS 2390, CPMT 1351, CPMT 2349, INEW 2334, ITCC 1401, ITCC 1404, ITCC 2408, ITCC 2410, ITSE 1311, ITSY 1342, ITSY 2300, ITSY 2317
Personal Responsibility	All
Social Responsibility	BCIS 1305, BCIS 2390, CPMT 1351, CPMT 2349, INEW 2334, ITCC 1401, ITCC 2359, ITDF 1300, ITSE 2309, ITSY 1342, ITSY 2300, ITSY 2317, ITSY 2341
Note: May Insert other Objective(s) Industry Certifications	BCIS 1305, ITSC 2335, CPMT 1351, CPMT 2349, ITCC 1401, ITCC 1404, ITCC 2408, ITCC 2410, ITSY 1342, ITSY 2300, ITSY 2341

2. Briefly explain how your department/program(s) have recently (i.e. past year) identified and ensured that these general education objectives are taught throughout each course section.

Faculty collaboration and meetings, same content for multiple course sections, all course material in Blackboard or other LMS (Pearson, CISCO, SAM), standard syllabus outcomes, content experts develop course for all faculty teaching the course.

3. What method(s) are your faculty using to assess the required objectives in your courses?

(List individual course prefix, state "all courses", state "N/A" for each method, etc.):

Method	Course(s)
Capstone Project/Exam	BCIS 1305, ITSC 2335, ITSE 2309, ITSE 1311, BCIS 2390, COSC 1430, CPMT 1351, INEW 2334, ITSY 2300, ITSY 2341
Embedded Questions	All
Licensure Exam	N/A
Portfolios	None
Projects/Essays	ALL
Testing (i.e. course-based testing; finals)	ALL
Note: May Insert other Method	

4. Briefly address any improvements made in your department/program(s) based on your data findings.

> Reduced degree to 60 hours, added short-term certificates to increase student completion and shorten time for entering the workforce, added more collaborative work, course redesign, added a student club.

5. In which course(s) have you implemented critical reading and thinking strategies? What strategies did you use? How would you evaluate your success in implementing these strategies? Are there strategies you discovered that you would like to share with your colleagues? Do you feel that your department/program could benefit from more professional development in this area?

> All.   Primarily outlining and summarizing, evaluating arguments

PART D: Core Curriculum Assessment – Program Outcomes
Complete this Section ONLY for Programs Directly Responsible for Core Curriculum Courses
The Texas Higher Education Coordinating Board (THECB) has identified 3-4 core objectives (competencies) that each core curriculum course is required to teach and assess.

You may either collect data and information from all core curriculum courses in your program/department or you may attach a separate document for each course/area in your department/program that answers the questions below.

1. Do you certify that your courses annually assess and collect data on the core objectives as required by the THECB?

Yes	No
X	

2. Do you certify that each course section is equitable in their assessment of the collection of data and assessment required by the THECB?

Yes	No
X	

3. Do you certify that the work assessed has an equal chance (i.e. you did not "cherry pick" the best student work) for assessment?

Yes	No
X	

4. Briefly describe the internal and external data you used to form your assessment benchmarks. Note: The THECB requires external data (e.g. CCSSE) be used to create your benchmarks.

> CCSSE and Strategic Plan

5. The "Call for Course Proposals for Inclusion" contains a description of each assignment/activity, direct assessment method, etc. for each of your department's/program's courses in the core curriculum.

   For each course approved for core curriculum inclusion, provide the following information:

   a) Provide a link to or copy of your data results and/or a summation of your results for each required competency for each core curriculum course in your program.

Total 25 points Category	At Least Superior [A]		At Least Good [B]		At Least Adequate [C]	
Critical Thinking	32/65	49%	49/65	75%	56/65	86%
Communication	34/65	52%	51/65	78%	59/65	91%
Empirical and Quantitative Analysis	40/65	62%	52/65	80%	58/65	89%
Social Responsibility	38/65	58%	49/65	75%	53/65	82%

Note: A total of 65 student groups were assessed

   b) Did you meet your benchmark/target in each course? If not, do you need to adjust your benchmark or adjust the instruction to meet the benchmark?

   Benchmark – at least 70% of student groups completing the assignments will score 18 points or higher for each category. As can be seen in the above table, the lowest category was Social Responsibility with 82% of student groups scoring at least an 18. We may need to adjust the benchmark higher – perhaps 80%.

c) Provide information on your data collection strategy (e.g. each faculty member collected data, sampling of student work collected across sections used, etc.):

> Each faculty member graded the group projects in their classes according to the rubric provided by the course developer. Every faculty member submitted all of their rubrics.
> Therefore, every student group in every class was collected.

d) Please explain how your results were evaluated (e.g. a team evaluated the data, data was collected from every student in the course via Blackboard, etc.):

> All students in each course section of BCIS 1305 were assigned the same project. Each faculty member graded the group projects in their classes according to the rubric provided by the course developer. Each rubric was the same. Then, each faculty member submitted all of their rubrics to the Chair to be evaluated. The Chair imported the rubric scores into an Excel spreadsheet and calculated the percentages of students who scored Superior, Good, and Adequate for each category.

e) How do you ensure your results are not biased and are reliable (i.e. inter-rater reliability)?

> Each faculty member used the same rubric to grade the projects. Although the rubric was specific, especially in some areas, in other areas subjective judgements were made by the instructor. This could lead to some instructors grading easy and some grading harder. We had an example of this happen where a student challenged his/her group's grade. Other faculty members regraded the project and gave a higher grade than the first faculty member. This told me that there may be too much subjectivity in grading this project, or that the first faculty member may have been biased against that student group. We may need to have faculty meetings to discuss consistency in grading. .

f) Please list the facts you feel contributed to your results (Analysis):

> Much time in class was spent discussing the project. Several mini-projects were assigned that led up to the final project. These mini-projects allowed students to get instructor feedback to incorporate in the final project.

g) How have you or will you improve student learning in each course based on the most recent assessment results?

> We need to have students provide a more thorough analysis of their findings. We will have the analysis portion described in better detail so that students will know what is expected of them.

6. For <u>each</u> core curriculum course and <u>each</u> core objective, please include a copy of the assessment instrument and five randomly selected, <u>evaluated</u> assessment samples with this form. Some examples of things you may include with your submission are as follows:
   o **Embedded Questions** – Copy of possible question bank and copy of five student work samples that include questions from the question bank

- o **Juried Assessment** – List of members on juried panel and copy of five panel evaluations. If student performance, picture or work, etc. is available, include that with your submission as well.
- o **Pre-Post Test** – Copy of pre-test/post-test questions and five samples of student work from pre-test and five samples of same students' work from post test
- o **Rubric** – Copy of rubric and copy of five student work samples
- o **Other Types of Assessment** –Use the above bullets as a reference point for what you may wish to provide. Please contact the Director of Institutional Effectiveness with specific questions.

Also, if it is not clear, please identify on your student work the portions of the student work that address the required THECB objective/s.

PART E: Curriculum Assessment - Program Outcomes:
This Section is ONLY Required for Programs Not Directly Responsible for Core Curriculum Courses
SACSCOC requires each program to provide quality student, customer, and/or client services. Each program not directly responsible for core curriculum courses must still annually identify at least one direct outcome within their program, provide results, analysis, and improvement plans related to that outcome.

1. For this review year, what were each program's <u>most important</u> goal(s) (i.e. broad goals you wanted to accomplish)?

> 1. Increase completers for certificate and degrees.
> 2. Prepare students for entry-level employment in the computer industry.

2. For this review year, what is/were each program's <u>most important</u> measurable outcome(s) that helped you achieve your goals (referenced above)? Provide examples of 1-3 <u>outcome statements</u>. (An outcome provides observable, objective evidence that your student's or client's knowledge, skill, ability, attitude, or behavior has changed as a result of your efforts.)

> Goal 1: Increase completers
> Outcome:
> Completers will increase by 5% each year.
>
> Goal 2: Prepare students for entry-level employment
> Outcome: Prepare students to successfully pass the MOS certification exam. This industry certification is internationally recognized as ensuring competency in Microsoft Office.
> After taking ITSC 2335 70% of students taking the MOS exam will pass.

3. Identify your results and analyze your data.

> Goal 1: Increase Completers by 5% each year. The following results are from the data book. The CIS has the following degrees BUSI.AS.CIS, COSC.AAS, CETT.AAS.NT as well as some certificates.
>
> 2012 completers were 57
> 2013 completers were 51
> 2014 completers were 21
>
> As can be seen, it looks like our completers are going the wrong way. The 2014 completers dropped a bit, however, in 2012 and 2013 our Marketable Skills Certificate made up a large

percentage of the number of completers in those years. (2012 – 35, 2013 – 24, 2014 – 3) I disabled the Marketable Skills Certificate in 2014 and created a Level-1, 15 hour certificate to replace it. I believe the drop in 2014 is because there were just 3 Marketable Skills Certificates given that year. Next year the numbers should increase due to the number of 15 hour Level One certificates that have been created for the 2015 -2016 catalog in the CIS department.

For Goal 2 – We measured this by success on the industry standard certification Microsoft Office Specialist (MOS).   As can be seen, by Spring 2015, we surpassed the goal of 70% of students will pass the MOS exam.

MOS TESTING FALL 2012 - SUMMER 2015			
Semester	Attempts	Pass	Pass %
Fall 2012	21	8	**38%**
Spring 2013	71	28	**39%**
Summer 2013	11	3	**27%**
Fall 2013	12	2	**17%**
Spring 2014	40	16	**40%**
Summer 2014	10	3	**30%**
Fall 2014	70	45	**64%**
Spring 2015	129	106	**82%**
Summer 2015	14	10	**71%**

4. What key change(s) has your department/programs made in the past year or do you plan to make based on your assessment of any outcome?

Added several short-term stackable certificates.
In the CETT.AAS.NT degree we added 4 certificates, each stack and lead to the AAS degree.
Network Essentials, 15 hour certificate leads to Network Administration, 27 hour certificate which leads to the AAS in Computer Networking/Cyber Security (CETT.AAS.NT).
Digital Forensics Certificate, 15 hour certificate leads to a Cyber Security Certificate, 30 hours, which leads to the AAS in Computer Networking/Cyber Security (CETT.AAS.NT).

5. Please provide supporting documentation with this review that relates to this outcome(s). For example, if you're using a rubric to assess student work, attach a copy of the rubric and five student samples. If you're focusing on licensure exam data, attach a copy of your pass rate results.

1. How have you or your staff adjusted your pedagogy (method and practice of teaching) to improve your academic quality and/or aid in some other area related to student success?

> Put all content online using Blackboard, Pearson's MyITLab, Cengage's SAM, and CISCO
> Developed more collaborative projects so students work in a team.
> Developed more hands-on learning opportunities.
> Developed hybrid and online courses

2. What program improvement opportunities are available to your staff (e.g. external curriculum committees, trainings, etc.)?

> CTL Trainings, New Faculty Academy, Conferences (if they are not too expensive), publisher provided trainings.

3. What is the biggest issue/obstacle that your program currently faces?
   Please explain the issue, point to evidence supporting why your issue is important (addressed in this document or elsewhere), explain how you would like to fix the issue, and explain any budgetary constraints.

> Faculty offices are on 3rd floor and students are on 2nd and 4th floors. This was decided by the previous chair and dean/division chair (both no longer with the college) during the BYRD renovation and we (faculty) were told it was a final decision and could not change it. It has adversely impacted student success in that collaboration and relationships between students and faculty are hindered. Students do not come up to the 3rd floor for help and rarely come up for office hours. Previously, faculty and students were on the same floor together. A collaborative spirit existed at that time that is missing now.
>
> How we are fixing this issue – developing a Problem Based Learning Lab and a gather place for teachers and students – calling this the "Think Tank". We will use media collaboration stations and students will bring their own devices. Students will be able to face each other as they collaborate on projects and faculty will be able to meet with students easier. Coffee and microwave will be provided. Funding for this is from our contract training earnings.

4. Additional Comments Pertinent to this Review (Not Required):