

Las Positas College
ANNUAL PROGRAM REVIEW TEMPLATE
Review of AY 2011-12

Name of Program	Division	Author(s)
CIS/CNT/CS	STEMPS	Daoud, Fields, Gonder, Hart, Schatz

INSTRUCTIONS:

1. This Annual Program Review covers the time frame academic year 2011-2012.
2. The planning should be for the academic year 2014-2015.
3. Use the Save As feature in Word to save this template with your program name, so that you do not overwrite the original template (*e.g.*, Bio, math, EOPS)
4. In each section, click in the box under the instructions and fill in your information. The box will expand as you type. If a section is not pertinent to your program enter N/A in the box; do not leave it blank.
5. To see how other programs completed sections in the Annual Program Review, visit the Examples Template on the PR website. The examples are from a variety of programs and may give you ideas of how to respond for your own program.
6. When you have completed the form, run the spell-checker (**click inside the text in the first box**, then click on the Review tab and find Spell-Check in the far left corner of the ribbon).
7. Please address your questions to your Program Review Committee representatives or the PR co-chairs Jill Carbone and Teri Henson. Concerns, feedback and suggestions are welcome at anytime to PRC representatives or co-chairs.
8. Instructions for submitting your Annual Program Review will be available at the start of the fall semester.

STATEMENT OF PURPOSE:

- Review and reflect on the student experience, with the goals of assessing and improving
 - student learning and achievement
 - services for students
 - program effectiveness.
- Provide a forum for each program's findings to be communicated to Administration
- Create written records of what is working well, what can be improved, and specific plans for implementing chosen improvements.
- Collect information that will contribute to institutional assessment and improvement.

I. MISSION

State the current program mission

(A mission statement should address the unique role and scope of the program. Consider the operating mission of your program. Identify specific purposes within your program (e.g., certificates, degrees, general education, matriculation, assessment). Avoid vague, overbroad language.)

Programs in the Computer Studies Cluster (Computer Information Systems, Computer Networking Technology, and Computer Sciences) deliver courses that provide educational opportunities and

support for students to:

- Gain new skills and further develop existing skills needed to effectively use computer technology in workplace and academic environments.
- Gain new skills and further develop existing skills needed for a broad range of career fields that require effective use of computer applications, networks, databases, web development skills, or programming skills.
- Transfer to four-year institutions to pursue students' chosen educational and career goals.

The disciplines in the Computer Studies cluster offer a variety of degrees, certificates of achievement, and career certificates that provide students with a pattern of coursework linked to specific careers and/or pathways to four year institutions.

CIS	CNT	CS
AA: Computer Information Systems Certificate of Achievement: Computer Applications Software (Microcomputers) Career Certifications: Web Development Project Management	AS: Network Security and Administration Certificate of Achievements: Cisco Network Associate Cisco Network Professional Career Certifications: Computer Desktop OS Security Computer Forensics Examiner Computer Network Administration (Microsoft) Computer Network Technician Emerging Technologies Network and Wireless Security TCP/IP Network Analysis	AS: Computer Science AS: Computer Programming AS: Computer Programming for the Web Certificate of Achievements: Computer Programming Computer Programming for the Web

Courses within the Computer Studies disciplines are also included in degrees and certifications for other disciplines such as Administrative Medical Assistant (CIS), Business (CIS), Administration of Justice (CNT), Engineering (CS), and Chemistry (CS).

The mission of Las Positas College is:

Las Positas College is an inclusive, student-centered institution providing learning opportunities and support for completion of transfer, degree, basic skills, career-technical, and retraining goals.

(NOTE: this is the draft mission statement, currently under review.)

Discuss how the program supports the college mission.

The programs in the Computer Studies cluster support the college’s mission by providing opportunities for students to achieve their transfer, degree, career technical and/or retraining goals.

II. PROGRAM ANALYSIS

A. Courses (For Instructional Programs Only)

1. Will any course outlines be revised or updated in the academic year 2014-2015?

(Highlight the appropriate box to type in an X.)

YES NO

If yes, in the table below, please list which courses will be revised or updated and the reason for the revision.

(Click in the box under Courses to start entering information. Tab to move to the next box. Tab in the last box to create a new row.)

Course(s)	Reason for Revision
CIS 50	Title V and update to address C-ID descriptor
CIS 60	Update for CIS TMC
CIS 55	Title V and update to address C-ID descriptor
CS 1	Title V and update to address C-ID descriptor
CS 2	Title V and update to address C-ID descriptor
CS 20	Title V, change prerequisites to advisory, and update to address C-ID descriptor
CS 21	Title V, change prerequisite to advisory
CS 31	Title V, change prerequisite to advisory
CNT 50/CIS 65	Title V update. Update technology topics to meet new industry needs.
CIS 66/CNT 52	Title V update. Update technology topics to meet new industry needs. Add online multimedia tutorials.
CNT 51A/CNT 51B	Title V update. Update technology topics to meet new industry needs. Add online multimedia tutorials.
CNT 54/55/56/57	Title V update. Update technology topics to meet new industry needs. Add online multimedia tutorials.

2. Will new curriculum (*e.g.*, course outlines, degrees) be submitted to the Curriculum Committee for the academic year 2014-2015?

YES NO

If yes, please describe briefly what new curriculum is planned.

<p>CS: Creation of a new CS course cross-listed with Math 10, designed to match the relevant C-ID descriptor and meet the needs of the CS TMC.</p> <p>CS: Creation of a new CS course on mobile application development on Android</p> <p>CIS: Creation of one new Adobe class for Adobe certification</p> <p>CNT: Creation of new Cloud Computing classes in coordination with Chabot</p>
--

B. New Initiatives (AY 2014-15)

Are any new initiatives planned for the academic year 2014-15?

(Examples of new initiatives include, but are not limited to: new degrees or certificates, new pathways, new outreach efforts.)

YES NO

If yes, please describe briefly what new initiatives are planned.

CS: Creation of a Computer Science ADT, pending state-level action on creation of STEM-specific IGETC requirements to determine if such an ADT would be feasible. If a Computer Science ADT is determined to be feasible, existing CS degrees will need to be consolidated and/or deactivated to ensure the overall set of degrees offered are consistent and completable by students given our course offerings.

CNT: LPC CNT faculty have created a cooperative program with Chabot to provide equipment and software online 24-7-365 for F2F and online class students to use. Additional cross-district classes, certificates and cooperation are in process to add more new High Tech training currently sought by employers in the Cloud Computing and Cloud Storage areas.

C. SLOs/SAOs

1. Status of course SLOs/SAOs and assessments for AY 2011-12.

(Since the Program Review process is beginning in 2013 and the assessments for AY 2012-13 will not be complete, analyze the assessments for the AY 2011-12). Click in the box under Number of Courses Offered. Press Tab to move to the next box. Press Tab at the end of the row to create a new row.

Number of Courses Offered (AY 2011-12)	Number of Courses with SLOs (AY 2011-12)	Number of Courses Assessed within the last TWO years (AY 2010-11, AY 2011-12)
105 Listed in eLumen Of this number 31 are not being offered at this time either because of lack of FTEF or because they have been converted to regularly numbered classes (instead of 99s).	86* *Within this number, there are several courses that are not being offered, and therefore, do not have SLOs or need Assessment. We have published this list often, but to no avail. In fall 2013, a number of these courses are being deactivated, which should assist with the cleanup so that only active courses are listed in eLumen.	34

2. How frequently have course SLOs/SAOs been assessed? (e.g: every semester, every other semester, once a year.)

(This is a summary; it is not a list of courses and their assessment frequency.) Click in the box and begin typing. The box will expand as you type.

2012 was our first year of consistent assessment. Full-time faculty intend to assess at least 50% of their courses each semester. Part-time faculty will be encouraged to perform assessments if compensation remains available.

3. Status of program-level SLOs/SAOs and assessments for AY 2011-12.

Number of degrees/certificates offered	Number of degrees/certificates with SLOs	Number of program level SLOs/SAOs
CIS – 1 degree CIS - 1 COA CIS - 2 career certificates CS – 3 degrees CS – 2 certificates CNT – 1 degree CNT – 2 COA CNT – 7 career certificates	CNT – 1 degree CNT – 7 career certificates CNT – 2 COA	CNT - 16

4. Analysis of SLO/SAO data for AY 2011-12.

(Attach a summary of the program's AY 2011-12 SLO/SAO data as an appendix.)

- a. Please describe the program-wide dialogue on assessment results, including assessment of distance education courses. Where would one find evidence of this dialogue?

(This section concerns the type and variety of dialog regarding assessment results, not the assessment results themselves. For examples of evidence, consider: meeting notes, program coordinator's records of dialogue, or email.) For each of these questions, click in the following box and begin typing. The box will expand as you type.

We have met during various structured work times – e.g., time allocated for work on SLO assessments in Spring 2013, and the convocation day discipline meeting time in Fall 2013 – to discuss our goals and data. There are no notes or minutes from these meetings, and, unfortunately, no participation from part-time faculty.

Each of our respective disciplines have a small number of full-time faculty and a large number of part-time faculty who have taught courses in recent years. The nature of our area is also unusual, consisting of three different disciplines/rubrics with many non-overlapping student populations and some student populations that do overlap but in complicated patterns that are spread across many specific sets of courses. As such, SLO and course success/completion data is most appropriately discussed in a way that includes the set of part-time faculty. (This is especially true in Computer Science, where we have only one full-time instructor) These discussions happen, but only informally and, to a limited extent, as part of regular part-time instructor evaluation meetings. Funding would need to be available for part-time instructors' extra time (beyond time to process and

input assessment data itself) for this to occur more systematically.

While eLumen provides one method of assessing student learning, more meaningful to our disciplines has been discussions around what is working in our classes and what is not and also comments from students regarding what they need to learn the materials more effectively. To that end, CIS instructors have been reviewing textbooks and publishers web based materials used in a number of classes including CIS 50, CIS 55, CIS 54, CIS 88A, CIS 88B, CIS 89A, and CIS 8. Full time and part time faculty have reviewed materials, in some cases, new texts have been selected and/or new web based materials have been incorporated into classes (specifically CIS 50, 54, and 8). Student comments were solicited throughout the first semester of implementation and based on those comments and the instructors' experience with the materials, decisions were made on whether to keep the new materials or look for new materials. This type of evaluation of student learning, while not as easily managed in a database, is of significant value to the instructors and to the students as it doesn't measure just one or two skills but provides a more holistic and inclusive evaluation of student learning over the course of the entire semester. CNT has also added lab simulations and additional hands-on practice to some of their courses based on student feedback about the value of these types of learning experiences.

- b. Please summarize what was learned from the assessments, including distance education courses. How will these results be used for improvement/s?

(Please provide at least two paragraphs. One paragraph should address face-to-face assessments, the other paragraph should address distance education assessments. If the course is taught in both face-to-face and distance education modes include a paragraph comparing the assessment results.)

In general, changes to the format of courses – face-to-face vs DE or hybrid – are discussed and made during conversations around discipline plans and scheduling and the needs and constraints of future semesters are examined. The disciplines also discuss the need to balance online and on-campus offerings of courses to best address student learning needs. CIS has piloted several different ways to adjust the scheduling (including late start) and hybrid (partially online/partially on-campus) format of courses to respond to student requests/needs and support improved student success.

CIS and CNT offer a significant number of courses in online and/or hybrid formats. Some classes are offered exclusively in online and some are offered exclusively on-campus format. While there is limited assessment data available, for those classes that have both online/hybrid and on-campus sections, there does not appear to be significant differences in assessment data.

- c. To what extent will, and how, do assessment results support resource requests for AY 2014-15?

The primary resource request linked to assessment results is additional lab space and additional access to Mac/OS X computers on campus. Rising enrollments in CS have led to especially large CS1 sections, making any one student's experience in that crucial initial

course potentially less optimal, and additional access to the OS X platform will support both students who are more comfortable with that platform and teaching of skills or applications based on that platform. Additional FTEF will be requested to add additional CS sections. However, until additional lab space is available, scheduling is problematic. It is anticipated that we will have access to an additional computer lab starting in the spring of 2015. The request has been made and approved by the Facilities committee for a 40-45 station computer lab in a renovated building 700.

- d. What are the general plans for assessments in the upcoming academic year AY 2014-15 (*i.e.* additional assessments or reassessment)?

We will continue to develop SLOs for all our degree and certificates. Full-time instructors intent to assess 50% of the courses they teach each semester. Part-time instructions will be encouraged to do likewise as long as funding remains available.

D. Student Data

1. Analyze the student data provided by the Office of Institutional Research (<http://www.laspositascollege.edu/researchandplanning/ProgramReview.php>) and other data as appropriate (for example: SARS-TRAK data, library student surveys).

- a. Please describe the program's dialogue about the student data. Where would one find evidence of this dialogue?

(This dialog should be occurring as you write your Program Review of 2011-2012. Examples of evidence may include: agenda or minutes from workshops or meetings, internal reports. Smaller programs may want to consider discussing their data with related programs, their Dean, the Institutional Researcher or, for academic programs, adjunct faculty in the program.) For each of these questions, click in the following box and begin typing. The box will expand as you type.

See C.5.a, above. We do have occasional meetings as a combined area across our three disciplines, but the most meaningful dialogue about student data would be with the pertinent part-time instructors within a discipline. In the absence of compensation for substantive meeting time, discussion of student data between full- and part-time faculty – e.g., a full-time instructor and a part-time instructor teaching different sections of the same course – is necessarily infrequent and limited to contexts like email exchanges on planning and curriculum and the part-time instructor evaluation process.

- b. Please summarize what the program learned from the student data. How will these results be used for improvement/s and planning?

(Briefly discuss trends or significant findings regarding student retention, success rates, different cohorts of students, etc. Student data may suggest the need for changes in course offerings, scheduling, teaching methodology, outreach, processes, etc., or may lead to the creation of a new SLO/SAO.)

We have reviewed data on demographics and student load between and among the three CS/CNT/CIS disciplines.

Of note when looking at CIS and CNT student demographic data, is that we serve

significantly more students in the 25 and older age range than the overall student population of the campus (47% of CIS students and 64% of CNT students vs. 33% overall. Also, the percentage of CIS and CNT students who have identified their educational goal as Occupational Certificate or Job Training is considerably higher than the overall campus populations (23% of CIS students and 37% of CNT student vs. 12% overall). As implementation of the Student Success Initiative measures moves forward, mandatory but unnecessary English and Math assessments will negatively impact our students. It is imperative that there be discussion of how students seeking job retraining and occupational skills can be exempted from these assessments that will impede their ability access our classes to achieve their educational goals.

A notable trend is the increasing enrollment in CS in recent years. CS' percentage of full-time students is also the highest among the three disciplines, and substantially above the average proportion of full-time students for the campus as a whole. In Computer Science, general rates of success remain strong but not optimal. Notably, success rates have remained in the same narrow range throughout a period of substantial enrollment growth. Post-census in the current semester, the two sections of the primary introductory course, CS1, remained close to 150% of their formal combined capacity.

Voluntary anonymous surveys collected in multiple CS classes throughout the last several semesters have generally produced strong quantitative feedback on courses and instruction.

Two strong themes in open-ended survey responses are:

1. Students with strong interest and aptitude in CS often "run out" of CS courses to take before they transfer: they typically must remain at LPC to finish math and other requirements for transfer schools and desire more advanced and/or more "elective" CS courses.
2. The computers in the lab classrooms in building 2400 are a frequent source of frustration and barrier to effective learning for CS students. These computers are set up to be used by a wide range of courses, have huge quantities of software installed, and it is common for them to run slowly, hang from time to time, or require long waits during what would otherwise be productive work time in class. As much as is feasible, we intend to explore and experiment with alternative setups for running CS classes, including thin clients and virtualization.

There is a strong need for expanding and diversifying offerings in Computer Science. To accommodate the increase in the number of student taking introductory CS courses, instructors have taken additional students into their sections. Having classes that were not over enrolled would likely improve student success because it would make intervention/support with weaker students easier, and a wider variety of courses would strengthen interest and engagement among students. To that end, we will be requesting additional FTEF to be able to offer additional sections of our introductory courses, particularly in the CS area.

Voluntary anonymous surveys in multiple CNT classes indicate that the current group of classes is well aligned to the training and retraining needs of students. However, given the limited time frames (12-18 months) for re-training funding for many students, e.g., veterans, the timing of a complete cycle of classes for degree tracks and certificate completion is critical to student success. Faculty have worked to ensure that students can complete their training within these time frames but with the decreased amount of FTEF available in the last several years, there may be some students who have not been able to complete their programs in a timely fashion.

Over the past several years, students in our Cisco program have performed well above national averages on the industry provided assignments and final exam. For Spring 2013, our students had a 91% average on the final exam (national average 78%) and their overall percentage for all assignments of 77% (national average 64%).

- c. To what extent, and how, do the student data results support resource requests?

(If relevant, briefly explain how your student data may be improved by acquiring new or additional resources (eg: faculty, classified personnel, instructional equipment, facilities) that you plan to request. You will be asked to provide more detailed information on the resource request forms; this is just a brief summary.)

Because the enrollment in CS has been trending upward, we have added some CS classes. In general, all CS courses need to be scheduled in computer-lab classrooms. The CIS and CNT enrollment trends are static due to course cutbacks. CNT student feedback on surveys strongly indicates the usefulness of online lab equipment. This is a key aspect to student success.

2. Enrollment Management (**Instructional programs only**)

- a. What total FTEF was approved for the program in 2012-13? This data is found in your Discipline Plans.

Total FTEF allocated for 12/13 was 21.88. The total FTEF put on schedule was 21.30

- b. If this amount differs from 2011-12, describe what changes have occurred.

(To find Total FTEF for AY 2011-2012 consult the Enrollment Management data on the IR website. (<http://www.laspositascollege.edu/researchandplanning/ProgramReview.php>). If your allocation was less than the previous year, comment on the types of courses that were cut. If the allocation was more, indicate which classes were added and why.)

The total FTEF on schedule for 11/12 was 20.752. When the campus received an additional FTEF allocation in Spring 13, we requested to add back several classes that were cut from our allocation in the previous years. We received an additional 0.548 FTEF for Spring 13 and .35 FTEF for Summer 13. This enable us to add back one CS, one CIS, and one CNT course.

- c. Describe and explain any changes you anticipate in course offerings for the academic year 2014-15.

There is a need to add additional courses in our CS discipline to meet student needs. In addition, we need to restore classes that were cut because of reduction in state funding so that our students can progress through their programs and get the classes that they need to meet their education goals.

Updates in technology necessitate new and updated curriculum. For instance, the general success of CS 16 (iPhone app development) has led to a large number of requests for a similar course for Android programming.

Updates in certification objectives will continue to drive regular updating of CNT, and to some extent CIS, classes. We need to restore classes that were cut because of reduction in state funding so that our students can progress through their programs and get the classes that they need to meet their education goals.

E. Human Resources (in AY 2011-12)

1. Please complete the following table.

(Enrollment Management data is posted on the IR website:

<http://www.laspositascollege.edu/researchandplanning/ProgramReview.php>).

Total FTEF*	FTEF from Full-Time Faculty*	% FTEF from Full-Time Faculty **
20.752	5	24%

* If your program consists of multiple rubrics (eg: Anatomy, Ecology, Microbiology) sum values from all rubrics

** If your program consists of multiple rubrics, use the following equation to calculate the % FTEF from Full-Time Faculty: Divide the FTEF from Full-Time Faculty by the Total FTEF and multiply by 100.

Type of Personnel	Number	Shared? With whom? If shared, state % of time assigned to the program	No. of hrs/wk	No. of mo/yr
full-time classified staff*	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.
regular hourly classified	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter

staff**				text.
student assistants	Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

* full-time: 20 hrs/wk (50%) to 40 hrs/wk (100%)

** regular hourly: 18 or fewer hrs/wk (45% or less)

2. Will human resources be adequate for the academic year 2014-15?

YES NO

If No, briefly describe. Provide any data which support these needs.

The Computer Center (803) provides significant support to the CIS program and to some extent to the CS and CNT programs. We believe that the human resources will be adequate, assuming that computer lab (803) is completing their own Program Review and computer lab support remains static.

3. Are there Staff Development needs for the academic year 2014-15?

YES NO

If yes, elaborate. Provide any data which support these needs.

Full- and part-time faculty across all CIS/CNT/CS disciplines have a need to remain up-to-date regarding new technologies/platforms, upgrades to software, publisher support resources and courseware. This need is not adequately address by the very limited funds that faculty can access to attend conferences.

F. Technological Resources

Are there any **new** technological needs for the academic year 2014-15?

(Do not discuss your existing technology, including replacements and repairs of existing technology. DO discuss new needs.)

YES NO

If yes, briefly describe. Provide any data which support these needs.

(Examples of relevant data might include: enrollment information related to the growth of your program, workforce demands/trends, obsolete or outdated equipment and/or software.)

Our campus computing assets are strongly dominated by Windows machines, with only 5 Mac / OS X machines publicly accessible to students at large (in the lab in room 803). This increasingly clashes with students' own home/personal computer choices, and also makes offering courses requiring work on the Mac / OS X platform – such as CS 16 (iPhone application development) – difficult carry out in an equitable manner. Students who happen to own OS X machines are able to do work at any hour of the day; those who don't must compete for a limited number of public-use computers available on a limited schedule.

We have used the Measure B Instructional Equipment request process to obtain one laptop cart that currently houses 20 Mac laptops. This helps the situation somewhat, but 20 laptops are not necessarily enough for a full course. The cart also isn't staffed and available during most "business hours" like the 803 computers, and is less physically secure from theft because it lives in a classroom that is both actively used and empty/unobserved at many times.

Going forward, students enrolled in our courses need a campus computing environment with greater availability of up-to-date Mac/OS X platforms to work on.

CNT is actively involved in a cross-district initiative with Chabot to provide online labs to student. The equipment at LPC needs to be moved to the server room in 2400. The hardware and software that supports CNT needs continual refresh and support.

G. Facilities, Equipment, and Supplies Resources

Are there any new facility, equipment or supply needs for the academic year 2014-15?
(In this section consider new facilities, equipment and/or supplies that are needed to support your program. This does not include your current items that need replacement. Definitions of these terms may be found in the glossary.)

YES NO

If yes, briefly describe. Provide any data which support these needs.

(Examples of relevant data might include: data on program's growth, change in curriculum, ADA regulations, etc.)

We have requested additional computer lab classroom space. Currently, there is a plan to convert a portion of building 700 into a 40-45 station computer lab to be shared with Math. This will be a great asset to the CIS and CS disciplines when the space becomes available in Spring of 2015. However, there is a need for additional space for our Computer Networking program. Specifically, there is a need for a space that can be fitted with workbenches so that students have room to disassemble, repair, and reassemble computers as part of several of our CNT courses including CNT 51A and CNT 51B.

CNT is actively involved in a cross-discipline initiative with Chabot to provide online labs to students. The equipment at LPC needs to be moved to the server room in 2400. The hardware and software that supports CNT needs continual refresh and support.

H. Financial Resources

1. Is there a Program budget for the academic year 2014-15? (Include any co-curricular funds)

YES NO

If yes, please briefly describe amount and general uses.

The Computer Studies cluster has a budget of approximately \$1,500 per year for supplies. This fund is not adequate for making large equipment purchases needed in the CNT, to support faculty to attend conferences/workshops to update their skills, or to purchase more than basic supplies for the programs. VTEA/CTE grants have been used to augment the department

funding. However, VTEA/CTE funding is not ongoing (it must be applied for each year) and does not address all areas where funding is needed. Faculty have also from time to time developed instructional block grant funding request to support their programs.

2. Are there any **new** financial needs for the academic year 2014-15?

(Examples of new financial need might include: new funding needed for upcoming events, new initiatives, changes in curriculum that require new training beyond what staff development can provide, request for release time for something new, etc.)

YES NO

If yes, briefly describe. Provide any data which support these needs.

CNT—LPC CNT faculty are embarking on a collaborative effort with Chabot CNT faculty to add more new High Tech training currently sought by employers in the Cloud Computing and Cloud Storage areas. This effort may require additional training/workshops/conferences for our CNT faculty to update skills and/or industry certifications in this area. This effort may also result in shift of the offerings in other areas of CNT. The faculty will need to review the classes currently being taught and determine whether some of those classes will be eliminated, reduced in the frequency of offering, or if there can be expanded collaboration with Chabot so that our students could easily and seamless access Chabot courses with similar content.

CS—If it becomes feasible to develop an ADT in Computer Sciences, it may be beneficial to have CS part-time instructors involved in this process for which they would need to be compensated.

CS/CIS—Assessment of student learning and development of ways to improve student learning requires that our part-time faculty be included in the conversations. Currently, we do not have a mechanism to compensate part-time instructors for attendance at discipline meetings where we can engage in a more meaningful dialog on what student learning means to our areas and how we can work to improve how our students are learning the materials in our courses. The current SLO process is does not address this as it records the achievement of students based on one or two identified skills out of the 100s that are covered in each class. More meaningful to us would be time to discuss the impact of the change in textbooks, scheduling options, and assignments in particular classes.

I. Other information pertinent to the program.

In the space below, discuss any other information which is pertinent to the program. Examples include

- Internal or external impacts on program
- (*e.g.*, mandates from state, curriculum changes in one program that impact another, loss of resources due to budget cuts, changes in college mission, goals, etc.)
- Other internal or external data (*data not discussed above*)

External and state-level impacts on the disciplines in Computing Studies include:

- New Transfer Model Curricula (TMC) for CS and CIS.
- A potential new Associate Degree for Transfer (ADT) for CS.
- Overall economic and demographic shifts have had a noticeable and ongoing effect in courses in our programs. More so than in many typical transfer-oriented disciplines, our courses include students with a very wide range of ages and extent of work/life experience. Recent years have seen a distinct rise in the number of armed-services veterans and unemployed workers from IT/tech/engineering fields seeking retraining and/or an additional degree.

III. SUMMARY

A. Summarize objectives accomplished since the Program Review Update (2012)

(The 2012 Academic Program Review Updates can be found on the Grapevine

<http://grapevine.laspositascollege.edu/programreview/ipr2010-11.php>

(Click on your discipline name.) Your brief discussion may include objectives accomplished since the 2010 program review, even if not discussed in the Update.)

Our 2012 Update refers to several cooperative projects with Chabot, including coordinating online access of Cisco equipment for students at both campuses, and developing a cooperative VM virtual machine infrastructure run in tandem to provide 24-7-365 lab access for students across the district. This work continues to advance. It now includes planning to incorporate virtual machine access to students in CS courses at LPC, enabling activities and curricular components that are not as easily achieved in the currently typical environments where CS students use physical computers with a generic login shared across many disciplines.

Our 2012 Update also indicated plans for expanding assessment of courses and developing and adding additional SLOs across our disciplines. As shown in the table under item C.1, above, our expansion of course-level SLO creation has been generally successful, now covering almost all extant courses. Objectives pertaining to assessment have been partially accomplished.

B Summarize objectives not accomplished since the program review update (2012) and why not.

(Your brief discussion may include objectives not accomplished since the 2010 program review, even if not discussed in the Update.)

Our goals for assessing course-level SLOs and creating degree/program-level outcomes were only partially fulfilled. In part, frankly, this is due to a perception, shared among faculty in our group of disciplines, that both the nature of assessment data as collectible in eLumen and the eLumen interface itself do not substantially support the types of data and discourse that most meaningfully contributes to student success. See H2 above.

C. What are the objectives for the academic year 2014-15?

(Summarize briefly the objectives you plan to accomplish or begin in 2014-15. You will describe your plan to implement/achieve these objectives in the Program Effectiveness Plan in Part IV.)

Our objectives for the 2014-15 academic year include:

- Increase student success and completion rates in CIS/CS/CNT courses. While our current course completion and course success rates are similar to the campus as a whole, we would like to see improvement in our courses success rates particularly in our CNT and CS areas. One area noted earlier in this document is the need to be able to offer more sections of our introductory CS courses so that the sections are not over enrolled as is currently the case. In the CIS and CNT areas, we need to break down the data more finely be able to better effect a change in our student success rates.
- Expand and systematize the feedback various CIS/CS/CNT faculty collect from students and prospective students, disseminating them for ongoing planning and discussion.
- Increase assessments of SLOs across our disciplines; expand dialog on more meaningful assessment of student learning.
- New computer classroom lab space available for use by programs to be able to schedule additional classes.
- Revise curriculum to meet C-ID descriptor (where available) and/or develop ADTs (where appropriate)

D. For all needs identified in Part II, summarize how these needs will affect student learning/achievement and impact the program.

(This brief summary should capture the effects on students and the program if the needs are met or unmet.)

Technological resources: If met, increased access to Mac/OS X machines will enable a wider range of students to effectively participate in courses and improve equity/access to learning about technologies linked to that platform. If not met, current barriers to equity/access will remain and courses like CS 16 will be harder to continue offering.

Facilities: If met, the shared Math/CIS/CS lab in building 700 will facilitate expansion of course offerings and reduce space/scheduling conflicts currently encountered with other disciplines. If the need for more space for CNT is met, it will improve that discipline's ability to offer applicable and effective learning experiences. It will greatly facilitate the effective implementation of the Chabot/LPC partnership for virtualization if CNT servers can be moved to the 2400 server room.

Financial Resources: As noted in H2 above, there may be a need for additional financial resources to support CNT training needs and/or the development of a CS ADT. Additional funding to compensate part-timer instructors for attending discipline meetings to discuss student learning (not put SLO data into eLumen) would be of great benefit to the CIS and CS disciplines (currently no CNT courses are taught by part-time instructors).

Staff Development: If met, increased staff development resources would increase our ability to provide students with up-to-date knowledge and training on the most current versions of relevant tools and platforms. If unmet, faculty will continue a combination of

self-training using free/low-cost resources and older versions of tools and platforms.

Continue to the next page to complete the form.

Name of Program	Division	Author(s)
CIS/CNT/CS	STEMPS	Daoud, Fields, Gonder, Hart, Schatz

IV. PROGRAM EFFECTIVENESS PLAN

Instructions: In the table below, indicate how you plan to measure the effectiveness of each objective summarized in Part III and the resources needed.

Suggested: 0-5 Objectives (focus on a few)

Rank	Priority 1=essential 2=important 3=nice to have	Objective	SLO's/SAO's linked to objective	College goal(s) linked to objective†	How will effectiveness be measured?	Category*	Resources needed	Committee
1	2	Increase student success and completion rates in CIS/CS/CNT courses.	Click here to enter text.		Measurement of student success and completion rates. Review of data for specific courses.	Human, facilities, technological	Lab space FTEF Professional development	Facilities CEMC Staff Dev
2	2	Expand and systematize the feedback various CIS/CS/CNT faculty collect from students and prospective students, disseminating them for ongoing planning and discussion	Click here to enter text.		The creation and/or publication of feedback data in a common site or form	Human Technological	Opportunities and compensation for collaboration with part-time faculty	Click here to enter text.
3	2	Revise curriculum to meet C-ID descriptor (where available) and/or develop ADTs (where appropriate)	Click here to enter text.		Update/develop course outlines/degrees	Human	Compensation for part-time faculty; time	Curriculum
4	3	Increase assessments	Click here to		Determination of	Human	Time	SLO

Name of Program	Division	Author(s)
CIS/CNT/CS	STEMPS	Daoud, Fields, Gonder, Hart, Schatz

		of SLOs across our disciplines; expand dialog on more meaningful assessment of student learning	enter text.		the percentage of SLOs assessed each semester. Research alternative student learning assessment methods that might provide more meaningful data	Technological	Compensation for part-time faculty	
5	Click here to enter text.	Click here to enter text.	Click here to enter text.		Click here to enter text.	Click here to enter text.	Click here to enter text.	Click here to enter text.

*human, technological, facilities/supplies, financial, other

‡When College Goals become available, this column will be activated.