Laney College

Instructional Program Review Narrative Report
2011-2013 – CIS Department

1.   **College: Laney**
       Discipline, Department or Program: Computer Information Systems (CIS)
       Date: November 12, 2012
       Members of the Instructional Program Review Team:
       Co-Chairperson: José Luis Flores CIS Instructor
                   Co-Chairperson: Kim Bridges CIS Instructor

2. **Narrative Description of the Discipline, Department or Program**

Laney College's mission is to meet the educational needs of its' student body by providing a comprehensive and flexible coupling of academic and vocational programs which will enable students to transfer to four year institutions or to earn vocational degrees and certificates in academic and occupational areas of achievement.

The Computer Information Systems (CIS) department's mission is closely aligned with Laney College's mission. While the CIS department at Laney College has lain fallow for over six years the department co-chairs that were installed this August are now endeavoring to maintain concurrency with both the rapidly changing technology and the requirements of our industry and academic area. These needs require that our department implement changes at a pace far surpassing what is customary within our district and typical of most academic programs.

The previous department co-chairs did not complete any of the tasks due for updating on the 2010 Program Review. In an attempt to bring the department up to date the Laney College CIS department's new co-chairpersons have implemented dozens of changes to the curriculum and programs beginning this semester. We've worked to deactivate all of our out of date courses and programs and to add two (2) new programs and have begun work on two programming certificates. Further we have begun the complete redesign and updating of all professional courses and to also add several new ones.

One of the primary goals of the CIS Discipline is to meet the needs of the Laney College Community by providing comprehensive and flexible programs for both transfer and non-transfer first and second year college level computer courses. The CIS department offers transferable courses to four year universities with concentration areas in Computer Science (CS) and other academic options. The effort is now being made to strengthen the course offering to students.

The CIS department also offers courses that lead toward the Associate Degrees in Computer Information Systems. By fall 2013 there will be two other (2) Associate Degree programs available from the department, one will be a CS degree based on the state template and the other will be an employment oriented Networking degree. There will also be two (2) programming certificates offered. Further there will be continuous development of new courses to meet the needs of the Information Technology (IT) industry along with the concurrent deactivation of courses that are no longer relevant.

3. **Curriculum**

A. **Have the course outlines been updated within the last three years?**

No, as new co-chairpersons we are currently updating course outlines and Program Learning Outcomes.

Is the curriculum current and effective?

No, as indicated above, the department is currently working on major changes such as updating and redesigning existing courses and programs, plus expanding with new courses and programs to the existing curriculum.

If not, what plans are in place to remedy this?

The department will update all existing course outlines by fall 2013.

B. **Has your department conducted a curriculum review of course outlines**?

Yes, a curriculum review was started in fall 2012. As part of the preparation for the creation of two new programs and the updating of existing courses, the CIS department began work on the introduction of new courses and the plans for expanding the curriculum.

C. **What are the department's plans for curriculum improvement (i.e., courses to be developed, updated, enhanced, or deactivated)? Have prerequisites, co-requisites, and advisories been validated? Is the date of validation on the course outline?**

Technology changes continuously drive the discipline to modify, update and or redesign the curriculum approximately thirty percent plus each year. The rapid technology changes also requires revisions of student learning outcomes, upgrading computer classrooms, Computer Labs, Networking Labs, server support for advanced programming and office technology. The process requires collaboration with the following: software vendors, textbook publishers, facilities and the IT Team.

The CIS department is at present working on major course changes and the redesign of the existing curriculum and plan to complete the course outlines update by the end of fall 2013.

Updating Existing Courses and Programs:
  (a) Updating CIS 001, and CIS 005
  (b) Activating the CIS 075 series.
  (c) Proposing a new CIS 25B advanced programming in C++

These courses can be incorporated in the revised requirements for 2 new programs which will then be submitted to state for approval.

Expanding With New Courses and Programs (A New CIS AA Degree):
  (a) A New Networking Degree
  (b) Two programming certificate programs

Curriculum Review Planning Report - Laney College

Name of the Discipline:
Computer Information Systems (CIS)

Date of the Report:
November 13, 2012

List Faculty Involved in Developing this Report:
José Luis Flores and Kim Bridges

Please complete this evaluation before your presentation date with the curriculum committee. We ask that you use the checklist on the reverse side to let us know where you are in your curriculum updating and your departmental methods for analyzing and evaluating the contents of course and degree/certificate offerings. Let us know what methods you use to maintain the integrity of academic standards and achieve consistency within the instructional program?

You can use the excel spreadsheet sent out by the committee to fill out this part of the checklist. You can paste the information into this form.

COURSES

1) List courses in the catalog and the date of the most recent course outline updates:

Course	Number	Course Name	Last Updated
CIS	1	Introduction to Computer Information Systems	Fall 2007
CIS	3	Computer Related Mathematics and Applications	Fall 2004
CIS	5	Introduction to Computer Science	Fall 2001
CIS	6	Introduction to Computer Programming	Fall 2001
CIS	16	COBOL Programming I	Fall 2000
CIS	20	Microcomputer Assembly Language	Fall 2004
CIS	23	C# Programming	Fall 2007
CIS	25	Object Oriented Programming Using C++	Fall 2001
CIS	26	C Programming	Fall 2000
CIS	27	Data Structures and Algorithms	Fall 2004
CIS	28	COBOL Programming II	Fall 1997
CIS	30	Data Communications & Networks	Fall 1997
CIS	32	Systems Analysis and Business	Fall 1996
CIS	036A	Java Programming Language I	Fall 2003
CIS	036B	Java Programming Language II	Fall 2006
CIS	37	Advanced Microcomputer Programming	Fall 1997
CIS	039A	UNIX/LINUX Operation Systems	Fall 2005
CIS	039B	Unix System Administration	Fall 1994
CIS	039C	UNIX Server Administration	Fall 2001
CIS	40	Database Management	Fall 2003
CIS	41	Database Programming	Fall 1997
CIS	49	Independent Study in Computer Information Systems	Fall 2001
CIS	61	Structure and Interpretation of Computer Programs	Fall 2000
CIS	061C	Machine Structures	Fall 2007
CIS	63	Software Testing	Fall 2001
CIS	64	Internet Programming in JavaScript	Spring 2006
CIS	65	CGI Programming	Fall 2001
CIS	66	XML Documents and Applications	Fall 2000
CIS	067A	Interface Design Using Visual Basic	Fall 2000
CIS	067B	Application Development Using Visual Basic	Fall 2000
CIS	73	Networking Concepts	Fall 2001

CIS	095A	Introduction to Game Theory, Development, and Programming	Fall 2007
CIS	095B	Projects in Game Theory, Development and Programming	Fall 2007
CIS	095C	Advanced Topics in Game Development and Programming	Fall 2007
CIS	096A	Introduction to System/Software Security and Encryption	Fall 2007
CIS	096B	Projects in System/Software Security and Encryption	Fall 2007
CIS	096C	Advanced Topics in System/Software Security and Encryption	Fall 2007
CIS	097A	Oracle SQL and PL/SQL	Fall 2007
CIS	205	Computer Literacy	Fall 2000
CIS	208A	Introduction to Operating Systems	Fall 2001
CIS	208B	Operating System Scripting	Fall 2001
CIS	209	Introduction To Windows	Fall 2000
CIS	211	Using Microcomputer Software	Fall 1996
CIS	233	Introduction to the Internet	Spring 2006
CIS	234A	World Wide Web Publishing I	Spring 2006
CIS	234B	World Wide Web Publishing II	Fall 2001
CIS	234C	Web Creation with Dreamweaver	Fall 2001
CIS	255	Computer Literacy Preparation (Project Bridge	Fall 2007

Note: Deactivating Highlighted Courses

DEGREES & CERTIFICATE PROGRAM

2) **List degree and certificate programs offered:**

Name	Degree	Certificate	Date of Most Recent Update
None at present			

CURRICULUM REVIEW (COURSE VERIFICATION CHECKLIST)

	Completed		Course Verification Checklist
	Yes	**No**	Please use CurricuNet to review all courses taught in your department and any certificates/degrees offered.
	Completed	*To be accomplished by*	
1	✓	Updating Spring 2013	**COURSE USE** Has the course been offered in the last two years? If not, consider deactivating the course.
2	✓	Updating Spring 2013	**DESCRIPTION/CATALOG INFORMATION** Does the course description accurately describe the course?
3	✓	Updating Spring 2013	**COURSE ALIGNMENT** Does the course content align with course objectives? Do the course objectives align with the overarching student learning outcomes?
4	✓	Updating Spring 2013	**STUDENT LEARNING OUTCOMES** Does the course/program have up-to-date student learning outcomes and assessment methods
5	✓	Updating Spring 2013	**LECTURE/LAB CONTENT, METHODS** Are course content and teaching methods listed in the COR current, appropriate and effective? To what extent are writing skills and critical thinking reinforced?
6	✓	Updating Spring 2013	**TEXTBOOK CURRENCY** Is the textbook current? (Transfer institutions require textbooks with a publication date that is within the 5 years)
7	✓	Updating Spring 2013	**COLLEGE LEVEL MATERIALS** For degree-applicable courses, are the reading materials college level?
8	✓	Updating Spring 2013	**REQUISITES** Have you completed the Content Review part of the outline? Have you reviewed and revalidated the prerequisites, co-requisites, recommended preparations? (Must be done at least every 6 years)
9	✓ CIS 1	Updating Spring 2013	**DISTANCE EDUCATION** Is there an online option for your courses? If so, is the distance education addendum current and accurate?
10	N/A	N/A	**STAND ALONE COURSES** Are any of your courses not degree applicable?
11	✓	Updating Spring 2013	**TRANSFER COURSES** Do transfer level courses meet CSU/UC standards? **(**Contact **Articulation Officer Laura Bollentino (lbollentino@peralta.edu)** if you have questions**)**
12	✓	Updating Spring 2013	**DEGREES AND CERTIFICATES** Are the courses appropriate? Are the units required appropriate? Are the descriptions of degrees/certificates current?

D. **What steps has the department taken to incorporate student learning outcomes in the curriculum? Are outcomes set for each course? If not, which courses do not have outcomes?**

As indicated above, we are currently updating course outlines and Program Learning Outcomes. This year we have submitted SLO's for CIS 001, 005, 25, 36A, 36B, 61, 73, and 205. The department will have all SLO's approved and submitted by fall 2013.

E. **Describe the efforts to develop outcomes at the program level. In which ways do these outcomes align with the institutional outcomes?**

We are in the process of submitting two new degree programs. The first is the CIS AA Degree and the second is a New Networking AA Degree.

F. **Recommendations & Priorities:**

The new department Co-Chairs are prioritizing the work to the two new degrees.

4. Instruction

A. **Describe effective and innovative strategies used by faculty to involve students in the learning process. How has new technology been used by the department to improve student learning?**

The department has not yet addressed this issue.

B. **How does the department maintain the integrity and consistency of academic standards within the discipline?**

The department has now begun to take the first steps to address this issue.

C. **Discuss enrollment trends of your department. What is the student demand for specific courses? How do you know? What do you think the salient trends affecting enrollment?**

See charts below:

Laney College Program Review Data

Subject: CIS

Section II Student Data

Department Overview

Dimension	Fall 2009	Fall 2010	Fall 2011
Census Enrollment	623	538	631
Sections	20	14	16
Total FTES	115.2	104.88	120.62
Total FTEF	11.88	9.63	10.71
FTES/FTEF	19.39	21.79	22.53

Student Retention

Dimension	Fall 2009	Fall 2010	Fall 2011
Census Enrollment	625	538	631
Retained	477	412	460
Retention Rate	76%	77%	73%

Student Success

Dimension	Fall 2009	Fall 2010	Fall 2011
TOTAL GRADED	583	491	592
Success Grades	351	276	352
Success Rate	60%	56%	59%

Section III Faculty Data

Dimension	Fall 2009	Fall 2010	Fall 2011
Contract FTEF	2.75	2.75	2
Hourly FTEF	2.66	1.53	3.06
Extra Service FTEF	0.53	0.53	0.29
% Contract/Total	0.46	0.57	0.37

Section IV Faculty Data Comparable Fall 2011

Dimension	Alameda	Berkeley	Laney	Merritt
Contract FTEF	1.79	1.55	2	1.28
Hourly FTEF	0	0.13	3.06	0.09
Extra Service FTEF	0.53	0.85	0.29	0.52
Total FTEF	4.64	5.06	10.71	3.77
% Contract/Total	0.77	0.61	0.37	0.68

Laney College Program Review Data

Grade Distribution

Grade	Fall 2009	Fall 2010	Fall 2011
A'	196	154	191
B'	83	76	113
C'	45	45	47
D'	23	25	23
F'	102	111	72
I'	0	0	9
NP'	1	0	4
P'	27	1	1
W'	106	79	132
Total	583	491	592

Fall to Spring Persistence Rates

| | F09 to S10 | | | F10 to S11 | | | F11 to S12 | |
| | | Persistence | | | Persistence | | | Persistence |
F09	S10	Rate	F10	S11	Rate	F11	S12	Rate
581	418	72%	510	352	69%	580	411	71%

Awards by Gender and Type

| | | 2011-12 | | | | 2010-11 | | | | 2009-10 | | |
Gender	AA	AS	CA	CP	AA	AS	CA	CP	AA	AS	CA	CP
Female	2		2									
Male	1		1									
Total	3		3									

Awards by Ethnicity and Type

| | | 2011-12 | | | | 2010-11 | | | | 2009-10 | | |
Ethnicity	AA	AS	CA	CP	AA	AS	CA	CP	AA	AS	CA	CP
Asian	1		1									
Filipino	1		1									
Unknown/Non Respondent	1		1									
Total	3		3									

Laney College Program Review Data

Duplicated Enrollment by Time of Day

Day_Eve	F09	F 09	F10	F 10	F11	F 11
Day	213	34%	232	43%	313	50%
Evening	412	66%	306	57%	318	50%
Total	625	100%	538	100%	631	100%

Headcount by Gender

Gender	F09	F 09	F10	F 10	F11	F 11
Female	239	41%	199	39%	206	36%
Male	301	52%	285	56%	342	59%
Unknown	41	7%	26	5%	32	6%
Total	581	100%	510	100%	580	100%

Headcount by Ethnicity

Ethnic Group Desc	F09	F 09	F10	F 10	F11	F 11
American Indian/Alaskan Native	3	1%	2	0%	1	0%
Asian	228	39%	163	32%	176	30%
Black/African American	145	25%	169	33%	157	27%
Filipino	6	1%	9	2%	10	2%
Hispanic	31	5%	36	7%	52	9%
Pacific Islander	2	0%	1	0%	3	1%
White Non Hispanic	36	6%	42	8%	88	15%
Multiple	4	1%	17	3%	39	7%
Other Non white	4	1%	7	1%	2	0%
Unknown/Non Respondent	122	21%	64	13%	52	9%
Total	581	100%	510	100%	580	100%

Headcount by Age Group

AGE	F09	F 09	F10	F 10	F11	F 11
16 and under		0%	1	0%		0%
16-18	15	3%	23	5%	37	6%
19-24	270	46%	240	47%	264	46%
25-29	73	13%	80	16%	93	16%
30-34	69	12%	54	11%	64	11%
35-54	119	20%	93	18%	99	17%
55-64	10	2%	15	3%	21	4%
65 & Above	25	4%	4	1%	2	0%
Total	581	100%	510	100%	580	100%

SUBJECT	DESCR	GENDER	2011-2012 AWARDS AA	AS	CA	CP	AWARDS Total	2010-2011 AWARDS AA	AS	CA	CP	AWARDS Total	2009-2010 AWARDS AA	AS	CA	CP	AWARDS Total
Campus	**Laney College**		Laney Awards Count 09/10,10/11,11/12 by Ethnicity by Gender														
CIS	CIS Computer Programming	FEMALE	2		2		4										
CIS	CIS Computer Programming	MALE	1		1		2										
CIS Total			**3**		**3**		**6**										

The data shown above clearly indicates the need for extensive revisions and change to the course offerings, degree programs and certificate programs to meet the needs of the current growth of the Industry.

The FTES/FTEF numbers show a fluctuation between 19.39 and 22.53 for the past 3 years from 2009 through 2011. For example, we were able to offer about 71 percent of the students instead of keeping a much lower enrolled class. And instead of going to Cal State or UC campuses, we have seen more students taking classes at our CIS department. Students have realized that they would pay less to fulfill the first 2 years or lower division required classes at our CIS department as compared to going to four-year universities.

However with these Technology changes that drives the discipline to revise courses, our CIS department will have to work carefully and prudently with the course availability and ways to offer classes. Possibilities in concurrent classes and fee-based classes will have to be considered and supported while working under our college budget constraints.

With the redesign of course offerings, partnership and economic alternatives, we would expect student enrollment trends to be better in the incoming semesters and years. And on top of these, we will be able to attract more students with our new course offerings.

With the economy coming out of the recession, high-tech companies are starting to hire again. People are looking to learn new and or update their skills. Our CIS Advisory Committee Meeting coming up in spring 2013, we would expect the committee members to confirm these facts and recommend us with appropriate update to our curriculum.

D. Are courses scheduled in a manner that meets student needs and demand? How do you know?

No, as new co-chairpersons we have received feedback from students regarding course schedule, and are currently setting the course schedule offerings throughout the day and evening; and conflict with the same offerings at other Peralta colleges. In addition, we have met with the CIS disciplines and decided to create a spreadsheet of all of the course offerings to better meet the needs of the students demand.

5. Student Success

A. Describe student retention and program retention (degree, certificates, and persistence rates) trends in the department. What initiatives can the department take to improve retention and completion rates?

The department is now in the process of being redesigned.

To improve the retention and completion rates:
- The department will make the effort to inform students about the proper course sequence as they are going to take computer science classes.
- The department will make sure that the equipment and systems are operational and would provide students with access and use.
- The department is currently coordinating the class scheduling so that students can take classes at different dates and times. Classes are offered with the plan to allow students to take (required) transferable courses during convenient hours (evening) and to avoid conflict with other courses (from the same CIS department or other departments).
- Instructors have scheduled and attended lab hours to work with students. Faculty office hours have been set up within the facilities where access to computers and equipment is available.
- Motivational guest speakers and presentations

B. What are the key needs of students that affect their learning? What services are needed for these students to improve their learning? Describe the department's efforts to access these services. What are your department's instructional support needs?

The department is conducting a study to identify the key student needs. We will identify the needs and produce a set of recommendations by fall 2013.

C. Describe the department's efforts to assess student learning at the course level. Describe the efforts to assess student learning at the program level. In which ways has the department used student learning assessment results for improvement?

The department is currently completing the SLO's and course outcomes. We will immediately design the assessment plans to improve and enhance our student learning and outcomes.

6. Human and Physical Resources (including equipment and facilities)

A. Describe your current level of staff, including full-time and part-time faculty, classified staff, and other categories of employment.

Faculty:
- Currently, there are 2 full-time and 6 part-time instructors to teach a total of 16 classes/sections.

Supportive Classified Staff:
- One computer technician
- One instructional aide
- Two students assistants

B. Describe your current utilization of facilities and equipment.

The department utilizes two of the departmental labs for classes; and plans to redesigning the other lab to offer open lab from 8a.m. to 9p.m..

C. Are the human and physical resources, including equipment and location, adequate for all courses offered by your department (or program)? What are your key staffing and facilities needs for the next three years? Why?

No, as new co-chairpersons we are in the process of redesigning the CIS department and its' lab usage.

D. Recommendations and Priorities

The department has currently two (2) full time positions that are unfilled and need replacements.

7. Community Outreach and Articulation

Community Outreach

- **What industry trends are most critical for the future viability of the program? How do you know? What are the implications of these trends for curriculum development and improvement?**

The most critical industry trends are in the developments of:
- Networking and Security
- Wireless/Mobile Development
- GRIN oriented software development

From industry news and our contacts (as given above), these areas represent the leads in technology changes and demand. Areas like network security and wireless/mobile development along with the new fields of Genetics, Robotics, and Nano technologies will only become ubiquitous and therefore the effort to counter with new courses and programs would always be exciting and in demand.

These trends and facts will pose challenges to us in terms of keeping our courses current, and learning what-to-select as appropriate materials to offer in our classroom setting. And, they will definitely give us the influx of professionals and students to our department as they see the course sets the offerings.

A. For Transfer Programs:

- **Describe the department's efforts in meeting with and collaborating with local 4-year institutions. Is the program adequately preparing students for upper division course work? How do you know?**

Assist.org and Articulation

The department is currently checking with postings from www.assist.org to verify and confirm our transferable and articulated courses. At Laney, we work with the counselors and articulation officer to make sure that our courses would be properly represented and articulated with the 4-year campuses.

B. For All Instructional Programs:

- **Describe the department's effort to ensure that the curriculum responds to the needs of the constituencies that it serves.**

Curriculum Up-To-Date – CIS Advisory Committee (CISAC) Input

The CIS Advisory Committee has provided comments and recommendations on our curriculum. This would give us the confidence of being current and technological sound with the course set and program offerings.

Curriculum to Serve Transfer Students

The department has always retained articulations and been on top of changes at the 4-year institutions.

Curriculum to Serve Working Professionals

It is very important to recognize that the department is investing with the technologies and industry needs. The course and program offerings would speak volumes.

- **Recommendations and Priorities**

Course Concentration

- To ensure the availability of the course offering per semester
- To provide consistency to the course offering to allow student to plan their classes
- To exhibit the strength of the department through transferable and professional courses – Allowing courses to be offered
- Maintaining course standards and up-to-date

Class Scheduling

- Scheduling classes at hours that are convenient to all students – Evening
- Avoiding time conflict for the offered courses at other colleges

CIS Advisory Committee & Meeting

- Inviting industry and working professionals to meeting
- Open to the recommendations and reasonable with the implementation