



# Welcome to Program Review

College of Alameda - 2019

CIS - Instruction

Annual Program Update

## Program Overview

**Please verify the mission statement for your program. If your program has not created a mission statement, provide details on how your program supports and contributes to the College mission.**

Aligned with College of Alameda's mission to serves the educational needs of our diverse community by providing comprehensive, flexible, live and online programs -- Computer Information Science (CIS) department is committed to supporting our faculty and empowering our students in developing global technology skills with its CIS degree, certificates and special programs in Desktop Support Technician, Web Publishing, and Big Data Analytics.

### Program Total Faculty and/or Staff

#### Full Time

Anthony Villegas (since 1993)  
Manny Uy (since 1997)  
blank  
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#### Part Time

Patrick McDermott (since 1995)  
Fayez ElGiheny (since 1999)  
Jesse Norman (since 2004)  
Marilyn Varnado (since 2013)  
Altantsetseg Erdenebaatar (since 2016)  
Irfan Ortak (COA since 2015, Laney after 2017)

**The Program Goals below are from your most recent Program Review or APU. If none are listed, please add your most recent program goals. Then, indicate the status of this goal, and which College and District goal your program goal aligns to. If your goal has been completed, please answer the follow up question regarding how you measured the achievement of this goal.**

Certificate of Proficiency in Big Data Analytics

Status

In-Progress

If Completed, What evidence supports completion of this goal? How did you measure the achievement of this goal?

College Goal

Advance CoA teaching and learning

District Goal

Build Programs of Distinction

Increase full-time faculty by two more in the next five years to have more course offerings

Status

In-Progress

If Completed, What evidence supports completion of this goal? How did you measure the achievement of this goal?

College Goal

Advance CoA teaching and learning

District Goal

Develop and Manage Resources to Advance Our Mission

**Describe your current utilization of facilities, including labs and other space**

- \* Library ~ we provide extra copies of our required textbooks at the reserve section for two-hour usage of our students in the Learning Resource Center
- \* D114 computer lab ~ we use this large lab with 40-60 computers for our large classes like CIS 1
- \* D204 computer lab ~ we use this small lab with around 20 computers for small Desktop Publishing certificate classes like CIX 201, 226A, 226B, 239
- \* D228 computer lab ~ we use this average size lab with around 30 computers for Computer Literacy (CIS 205) and Big Analytics class (CIS 70)
- \* D232 computer lab ~ we use this average size lab with around 30 computers for Database (CIS 40), Spreadsheets (CIS 42), and other classes

## Program Update

### Semester End Enrollment/Usage Pattern

Review your Semester End Enrollment by setting the filter to your college and subject

**Equity Subgroups**

Academic Year: 2018-19 | College: College of Alameda | Subject: CIS

Year	Gender	Headcount	Census Enrl	Course Completion Rate	Course Retention Rate
2018-19	Female	395	452	55%	75%
2018-19	Male	357	415	56%	77%
2018-19	Unknown	12	14	43%	50%
<b>Total</b>		<b>764</b>	<b>881</b>	<b>55%</b>	<b>75%</b>

  

Year	Age	Headcount	Census Enrl	Course Completion Rate	Course Retention Rate
2018-19	16-18	52	55	58%	82%
2018-19	19-24	301	335	60%	77%
2018-19	25-29	149	174	51%	74%
2018-19	30-34	86	109	57%	70%
2018-19	35-44	135	163	52%	77%
2018-19	55-64	19	23	35%	70%
2018-19	65 & Above	7	8	38%	75%
2018-19	Under 16	18	18	56%	67%

  

Year	Ethnicity	Headcount	Census Enrl	Course Completion Rate	Course Retention Rate
2018-19	American Indian	2	2	50%	100%
2018-19	Asian	257	298	68%	84%
2018-19	Black / African American	150	167	40%	67%
2018-19	Hispanic / Latino	170	190	50%	72%
2018-19	Pacific Islander	2	3	100%	100%
2018-19	Two or More	29	41	30%	61%
2018-19	Unknown / N/R	29	31	68%	74%
2018-19	White	125	149	57%	77%

*Filter first by Academic Year, then by College and Subject. To examine equity subgroups use the filters to the left.*

Microsoft Power BI | 2 of 5

**Using the dashboard, review and reflect upon the data for your program. Describe any significant changes and discuss what the changes mean to your program. Consider whether performance gaps exist for disproportionality impacted students. Focus upon the most recent year and/or the years since your last comprehensive program review. Cite data points from the dashboard to support your answer.**

The graph represents aggregate scores for CIS Courses (Fall 2016 to Spring 2019) which include

CIS 1 (4 units) Computer Information Systems  
 CIS 5 (5 units) Computer Science  
 CIS 40 (4 units) Database Management  
 CIS 42 (4 units) Spreadsheet Applications  
 CIS 70 (2 units) Intro to Tableau Analytics  
 CIS 201 (4 units) Intro to Computer Hardware  
 CIS 205 (1 units) Computer Literacy  
 CIS 226A (3 units) Desktop Support Technician I  
 CIS 226B (3 units) Desktop Support Technician II  
 CIS 234A (2 units) World Wide Web Publishing I  
 CIS 234B (2 units) World Wide Web Publishing II  
 CIS 234D (2 units) Web Authoring  
 CIS 234E (2 units) Electronic Commerce Website  
 CIS 239 (2 units) Help-Desk Tools and Techniques

COMPLETION rate

represents percentage of students who received a passing grade of A, B, C, D or Pass/Credit. The inverse of it is the INCOMPLETION rate which means percentage of students who received non-passing grade of F or Incomplete

RETENTION rate

represents percentage of students who remained registered until the class ends. The inverse of it is the NON-RETENTION rate which means percentage of students who dropped the class for no show, no W or with W grade.

From the graph of aggregate data from (A) 2016-17 through (B) 2017-18 to (C) 2018-19, we have

2016-2017 showed completion rate of 64% and student retention rate of 81%  
 2017-2018 showed completion rate of 54% and student retention rate of 73%  
 2018-2019 showed completion rate of 55% and student retention rate of 75%

--> CIS Completion rate has decreased from 64% through 54% to 55%

--> CIS Retention rate has decreased from 81% through 73% to 75%

What explains the downtrend in 2017-2018 and the stabilization in 2018-2019?

EXPLANATIONS of Downturn then Stabilization Trend Lines

THERE ARE FIVE (5) MAJOR DISRUPTIONS THAT CAUSED THE DOWNTURN IN 2017-2018 and STABILIZATION WITH SLIGHT UPTICK IN 2018-2019.

DISRUPTION #1 ~ 2017 Realignment of CIS Department to new Division away from main campus

CIS Department was removed from Business and Transportation Division I (aka Workforce Development and Applied Sciences) in 2016 and realigned with the STEAM Division (Science Technology Engineering Arts Math) in 2017.

This transition caused disruption as the Division office moved from main campus at D202 to Science annex campus around one kilometer away. Personal interaction between faculty and staff decreased. Also immediate action on paperwork such as signatures on grade changes and key requests were delayed.

DISRUPTION #2 ~ New Dean and Departure of long-term senior staff in 2017

2016 2017

2010-2011

Dean: Lilian Celhay  
 Secretary: Charlene Maney and Mary Arndt-Greenspan (working since late 1980s)  
 CIS Chair: Marilyn Varnado, P/T CIS Instructor

2017-2018

Dean: Ana McClanahan (new hire)  
 Secretary: Mary Arndt-Greenspan (retired Spring 2017) and Charlene Maney (retired Fall 2017)  
 No permanent staff replaced them  
 Office: COA main campus (D202) moved to if science annex campus  
 CIS Chair: Jesse Norman, P/T CIS Instructor

2018-2019

Dean: Ana McClanahan  
 Secretary: Chevonn Herbert  
 CIS Chair: Maria Guzman, P/T Art Instructor

2019-2020

Dean: Ana McClanahan  
 Secretary: Chevonn Herbert  
 CIS Chair: Silvester Henderson, P/T Music Instructor

CIS Department was initially assigned to Business and Transportation Division which was renamed as Workforce Development and Applied Sciences in 2012. Then in 2017, CIS was realigned with the Science Technology Engineering Arts and Math (STEAM) Division.

Prior Deans included Juan Vasquez (1990-1997), Mrs. (Tamara ?) Brown (1997-1999), Maureen Duncan (1999-2001), Peter Simon (2001-2011), Gary Perkins (2011-2012), Michael Goldberg (2012-2013), Myron Jordan (2013-2014), Charlene Perlas (2014-2016), Lilia Celhay (2016-2017), and Ana McClanahan (2017-present).

#### MAJOR CHANGES (DISRUPTIONS)

At the end of Spring 2017, long-term (25+ year) senior staff Mary Arndt-Greenspan retired and departed. She was responsible for vendor validation, purchase requisition, budget disbursement, and delivery certification. No one replaced her and CIS faculty had difficulty in acquiring needed equipment and supplies for faculty instruction. CIS 234D Web Authoring class suffered when the software Dreamweaver needed to be purchased and installed on time. No one properly replaced Mary, and the temporary staff had no training and experience in assisting CIS instructors in buying needed supplies like new ink cartridges and bulbs for D114 computer lab laser printers and computer projector.

At beginning of Fall 2017, newly hired Dean Ana McClanahan was still getting acquainted with CIS faculty and needed time to learn the problems of and develop solutions for the CIS Department.

At end of Fall 2017, long-term (20+ year) senior staff Charlene Maney retired and departed. The temporary replacement in main campus D202 was still learning the standard operating procedures. Forms for class registration adds, change of grades, key requests, parking permits, teaching assistant hiring form, student payooll form, etc. were mishandled and delayed.

#### DISRUPTION #3 ~ High Turnover of CIS Department Chairs

2016-2017

CIS Chair: Marilyn Varnado, P/T CIS Instructor

2017-2018

CIS Chair: Jesse Norman, P/T CIS Instructor

2018-2019

CIS Chair: Maria Guzman, P/T Art Instructor

2019-2020

CIS Chair: Silvester Henderson, P/T Music Instructor

With high turnover of CIS Department Chairs, lessons learned from prior years are forgotten. New Chairs seem to reinvent the wheel.

Since prior chairs are part-time, they are not always present on campus when students or faculty require their assistance. Forms requiring their signatures such as add forms for classes or change of grade forms are delayed if not completely neglected. Their attendance to important committee meetings are missed or completely forgotten. If they sent a proxy, reports by proxy are given verbally and not properly recorded by the Chairs and shared with the rest of the CIS faculty.

CIS Program Reviews and Annual Program Updates were not previously done or were submitted late if done at all by the CIS Department Chair. What's needed is for the new Chairs to interview or solicit assistance from CIS Faculty. What also is needed is for the previous Chair to communicate and share work documents with the new Chair so that we don't have to reinvent the wheel every year.

DISRUPTION #4 ~ Need for more CIS Faculty to replace those who left

We need more CIS Instructors. Two full-time and five part-time instructors are not enough to offer the classes needed by our students to respond to develop technology skills demanded by the job market. In 2016, two additional part-time instructors (Fowler and Johnson) left and full-time instructor (Bob Grill) started to go on medical leave and was not available to teach. The remaining instructors carried the extra load left behind.

Having numerous larger classes (full class of 40 or more) by the limited number of instructors increased stress and reduced the quality of instructions.

DISRUPTION #5 ~ Transition to a new ONLINE Computer Learning System

ONLINE Learning Systems from 2016 to 2019  
Up to Summer 2017 Moodle was our sole online learning system  
2017-2018 Both Moodle and Canvas were our online learning system  
Since Fall 2018 Canvas became our online learning system with Moodle content still available  
Since Summer 2019 Canvas became our online learning system with Moodle content no longer available

Transition of Online Learning System from MOODLE to CANVAS created major disruptions in the curriculum, instruction and assessment. This required extra TIME and EFFORT for instructors and students alike to learn and become proficient with the new system.

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STUDENTS registered in short-term classes LOSE access to Canvas once class lecture day ends, even if it is not yet the end of the semester. THIS is the MAJOR reason why the RETENTION rate dropped but is much higher than the COMPETITION rate.

Student access to Canvas ended on the last day of lecture even when class exams have not yet occurred. They cannot complete the course when Canvas is not accessible and course syllabus allow for class assignments to be submitted on EXAM DAY which occurs later.

SOLUTION: Canvas should extend ACCESS by students to the DATE when grades are submitted.

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Regarding CURRICULUM, some book publishers do not support Canvas system.

Regarding INSTRUCTION, some features do not exist in Canvas. There's no instant messaging or chat features., only discussion forum. Better than Moodle, Canvas segregate messages into separate classes which help instructors identify class the student belongs to.

Regarding ASSESSMENT, some book publishers do not have Testbanks formatted for Canvas. Instructors must therefore type questions and answers tediously in separate fields to use the automatic grading feature of Canvas. This again takes a lot of time and effort.

With MORE classes offered ONLINE instead of LIVE classes as shown below, it is crucial that CIS instructors and students become proficient in using CANVAS.

SUPPORTING DATA showing growing trend for ONLINE or Hybrid Classes

2019 SUMMER = 4 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 205[1]  
 ~ HYBRID ~ CIS 205[1] none  
 ~ ONLINE ~ CIS 1[1] 5[1] 40[1]

2016 FALL = 14 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 1[2] 205[2] 226A[1] 239[1]  
 ~ HYBRID ~ CIS 1[1] 40[1] 42[1]  
 ~ ONLINE ~ CIS 1[2] 5[1] 234A[1] 234E[1]

2017 SPRING = 16 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 1[2] 201[1] 234B[1]  
 ~ HYBRID ~ CIS 40[1] 42[1] 234B[1] 234D[1]  
 ~ ONLINE ~ CIS 1[6] 5[1] 234A[1]

2017 SUMMER = 5 CIS classes

Classes with number of sections in brackets [ ] included (Need help, data missing)

~ LIVE ~ CIS 205[1]  
 ~ HYBRID ~ CIS 205[1] none  
 ~ ONLINE ~ CIS 1[3] 5[1] 40[1]

2017 FALL = 18 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 1[4] 205[2] 226A[1] 239[1]  
 ~ HYBRID ~ CIS 40[1] 42[1]  
 ~ ONLINE ~ CIS 1[4] 5[1] 234A[1] 234B[1] 234E[1]

2018 SPRING = 14 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 1[1] 70[1] 201[1] 205[1] 226B[1]  
 ~ HYBRID ~ CIS 1[1] 42[1]  
 ~ ONLINE ~ CIS 1[4] 5[1] 234A[1] 234B[1]

2018 SUMMER = 7 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 205[1]  
 ~ HYBRID ~ CIS 1[1]  
 ~ ONLINE ~ CIS 1[2] 5[1] 234A[1] 234B[1]

2018 FALL = 13 CIS classes

Classes with number of sections in brackets [ ] included (

~ LIVE ~ CIS 1[2] 205[1] 226A[1]  
 ~ HYBRID ~ CIS 1[2]  
 ~ ONLINE ~ CIS 1[3] 5[1] 234A[1] 234B[1] 234D[1]

2018 SPRING = 14 CIS classes

2019 SPRING = 14 CIS classes

Classes with number of sections in brackets [ ] included

~ LIVE ~ CIS 1[3] 70[1] 205[1] 226B[1]

~ HYBRID ~ CIS 1[1] 42[1]

~ ONLINE ~ CIS 1[3] 5[1] 234A[1] 234B[1]

2019 SUMMER = 10 CIS classes less 3 classes cancelled

Classes with number of sections in brackets [ ] included (x = class cancelled)

~ LIVE ~ CIS 1[x] 205[1]

~ HYBRID ~ CIS 1[x]

~ ONLINE ~ CIS 1[3] 5[1] 40[1] 234A[1] 234B[x]

2019 FALL = 14 CIS classes less one class c

ancelled

Classes with number of sections in brackets [ ] included (x = class cancelled)

~ LIVE ~ CIS 1[x] 70[1] 205[1]

**Describe the department's progress on Student Learning Outcomes (SLOs) and/or Administrative Unit Outcomes (AUOs) since the last Program Review/APU. If your discipline offers a degree or certificate, please describe the department progress on Program Learning Outcomes (PLOs).**

Program Level Student Learning Outcomes

The Department continues to meet to refine program level SLOs™s:

1- Knowledge and understanding of principles, terminology, concepts, and theories relating to computer information systems, software and applications

2- Application of skills in using computer systems and software applications

3- Knowledge of data communication and storage concepts

4- Knowledge of electronic libraries and other information sources to find, select, and evaluate needed information (information literacy)

5- Knowledge of the application of 1, 2, 3 and 4 above in the academic environment and business workplace

These abilities are assessed by a combination of traditional written tests and continuous evaluation including essays, group work, practical examinations and demonstrations in applications, networking, and computer programming problems.

Computer Information Systems (CIS) Department offers the following degree and certificates:

[ ] AA Degree in CIS and Certificate of Achievement (24-26 units)

CIS 1 (4) " Intro to Computer Information Systems

Or CIS 5 (5) " Intro to Computer Science

CIS 40 (4) " Database Management

CIS 42 (4) " Spreadsheet Applications

CIS 238A (3) " Word Processing I (under Curriculum Review)

PLUS a minimum of 9-10 units from the following

CIS 238B (3) " Word Processing II (under Curriculum Review)

CIS 23 (4) " C# Programming

CIS 25 (4) " Object-Oriented Programming Using C++

CIS 36A (4) " Java Programming Language I

CIS 36B (4) " Java Programming Language II

- CIS 39A (4) " UNIX/LINUX Operating System
- CIS 97A (4) " Oracle SQL and PL/SQL
- CIS 201 (4) " Intro to Computer Hardware
- CIS 226A (3) " Desktop Support Technician I
- CIS 226B (3) " Desktop Support Technician II
- CIS 209 (1) " Intro to Windows
- CIS 233 (2) " Intro to the Internet (under Curriculum Review)
- CIS 234A (2) " World Wide Web Publishing I
- CIS 234B (2) " World Wide Web Publishing II
- CIS 234D (2) " Web Authoring
- CIS 234E (2) " Creating an E-Commerce Web Site
- CIS 239 (2) " Help Desk Tools and Techniques

[ ] Certificate of Proficiency in Desktop Help Technician (16 units)

- CIS 1 (4) " Intro to Computer Information Systems
- CIS 201 (4) " Intro to Computer Hardware
- CIS 226A (3) " Desktop Support Technician I
- CIS 226B (3) " Desktop Support Technician II
- CIS 239 (2) " Help Desk Tools and Techniques

[ ] Certificate of Proficiency in Web Publishing (10 units)

- CIS 233 (2) " Intro to the Internet (under Curriculum Review)
- CIS 234A (2) " World Wide Web Publishing I
- CIS 234B (2) " World Wide Web Publishing II
- CIS 234D (2) " Web Authoring
- CIS 234E (2) " Creating an E-Commerce Web Site

~~~ Prepared by CIS Prof. Anthony Villegas ~~~

**Describe the outcomes and accomplishments from previous year's funded resource allocation request.**

| Brief description of funded request | Source (any additional award outside your base allocation) | Total Award Amount | Outcome/Accomplishment |
|-------------------------------------|------------------------------------------------------------|--------------------|------------------------|
| HELP -- missing data                | HELP -- missing data                                       | n/a                | HELP -- missing data   |

**In the boxes below, please add improvement actions and resource requests that are directly related to the questions answered in this section. If there are no improvement actions or resource requested in this area, leave blank.**

Improvement Action

Improvement Actions

**Improvement Action**

| Action Item                           | Description                                                                                                      | To be completed By | Responsible Person            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------|
| Hire One new full-time CIS instructor | Need at least one new faculty in order to offer more CIS classes to meet increasing demand for technology skills | 6/30/2020          | CIS Chair Silvester Henderson |

**Resource Request**

| Personnel   | Full-time Faculty                                                                                                |                               |                                 |
|-------------|------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------|
| % Time      | Description/Justification                                                                                        | Estimated Annual Salary Costs | Estimated Annual Benefits Costs |
| 100         | Need at least one new faculty in order to offer more CIS classes to meet increasing demand for technology skills | 60000                         | 10000                           |
| Total Costs |                                                                                                                  |                               |                                 |
| 70000       |                                                                                                                  |                               |                                 |

**Improvement Action**

| Action Item                      | Description                                                      | To be completed By | Responsible Person             |
|----------------------------------|------------------------------------------------------------------|--------------------|--------------------------------|
| CIS 238A (3) Curriculum Approval | Need to reactivate this course for AA degree and CIS Certificate | 4/30/2019          | CIS Professor Anthony Villegas |

**Resource Request**

Choose an Option

**Improvement Action**

| Action Item                      | Description                                                      | To be completed By | Responsible Person             |
|----------------------------------|------------------------------------------------------------------|--------------------|--------------------------------|
| CIS 238B (3) Curriculum Approval | Need to reactivate this course for AA degree and CIS Certificate | 4/30/2019          | CIS Professor Anthony Villegas |

**Resource Request**

Choose an Option

**Improvement Action**

|                                 |                                                      |                    |                                |
|---------------------------------|------------------------------------------------------|--------------------|--------------------------------|
| Action Item                     | Description                                          | To be completed By | Responsible Person             |
| CIS 233 (2) Curriculum Approval | Need to reactivate CIS Certificate on Web Publishing | 4/30/2019          | CIS Professor Anthony Villegas |

### Resource Request

Choose an Option

## Resource Request Summary

Total Cost: \$70000  
Total Resource Request: 4

| Program Update            |        |                                                                                                                  |                               |                                 |             |
|---------------------------|--------|------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------|-------------|
| Personnel                 |        |                                                                                                                  |                               |                                 |             |
| Type                      | % Time | Description/Justification                                                                                        | Estimated Annual Salary Costs | Estimated Annual Benefits Costs | Total Costs |
| Full-time Faculty         | 100    | Need at least one new faculty in order to offer more CIS classes to meet increasing demand for technology skills | 60000                         | 10000                           | 70000       |
| <b>Sub-Total: \$70000</b> |        |                                                                                                                  |                               |                                 |             |

Professional Development  
No Resources found for this category

Technology and Equipment  
No Resources found for this category

Supplies  
No Resources found for this category

Facilities  
No Resources found for this category

Library  
No Resources found for this category

Other  
No Resources found for this category

## Sign and Submit

**Please provide the list of members who participated in completing this program review.**

CIS Professor Anthony Villegas

**Please enter the name of the person submitting this program review.**

CIS Professor Anthony Villegas