



College of Alameda

2023-24 Annual Program Update – Computer Information Systems

CIS Program Overview

Please provide your program’s mission statement and program’s learning outcomes

In fulfillment of the mission of College of Alameda to serve the educational needs of our community by providing comprehensive and flexible programs and resources that empower students to achieve their goals, Computer Information Systems (CIS) is committed to supporting our faculty and to empowering our students in developing global technology skills through our CIS degree, certificates and special programs in Programming, Desktop Support, Web Publishing, Information Technology and Big Data Analytics.

List your program faculty and/or staff

CIS – Full-Time Faculty		Taught and can teach CIS classes
Anthony VILLEGAS (AV)	PT 1993-06 * FT 1999-01	1, 5, 6, 23, 25, 40, 42, 70, 97A, 121, 122, 123, 201, 205, 209, 223A, 223B, 223C, 223D, 224, 226A, 226B, 227, 233, 234A, 234B, 234D, 234E, 238A, 238B, 239
CIS – Tenure Track		Taught and can teach CIS classes
JoAnne Strickland (JS)	PT 2017 → FT 2024	1, 5, 6, 23, 25, 40, 42, 70, 97A, 121, 122, 123, 205, 233, 234A, 234B, 234D, 234E
CIS – Part-Time Faculty		Taught CIS classes
Jesse NORMAN (JN)	PT 2005-08	1, 5, 23, 25, 40, 42, 201, 205, 226A, 226B, 239
Marilyn VARNADO (MV)	PT 2012-02	1, 70, 205
Barbara Collins (BC)	PT 2021-23	1, 205
James Kennedy	PT 2023 Fall	1, 205

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

COA H108 is our new computer lecture and lab room which replaced our previous D114 lab since we returned to vis-à-vis classes in 2022. Our previous D114 filing cabinets and drawers were removed without fair warning. Their contents e.g. instructor manuals, exam keys, student projects, USB drives are no longer be replace. We need new filing drawers in H108 for our CIS instructors. Previous A224, A228, A231 classrooms have not been used. 202D open labs is used when library is open

List your program goals from your most recent Program Review or APU. Then, provide an update on the status of the goal. Has your program achieved the goal? Have any of your goals been revised or any still in progress? Lastly, make sure to discuss which College or District goal your program goal aligns to.

If no program goals exist or if this is your first program review, work to create 2-3 goals and align them with a College or District goal.

Program Goal	Hire new full-time tenure-track CIS instructor to teach programming and data analytics.
Status: In-Progress or Complete?	Completed after screening, interviewing, recommendation of CIS committee, President’s decision and offer. JoAnne Strickland agreed to start full-time by Spring 2024,
Which college or district goal is aligned with your program goal?	COA Goal #1 – Advance COA Teaching and Learning PCCD Goal #1 – Advance Student Access, Equity, and Success Vision for Success – Goal 1: Over the next five years, we will work on increasing 10% per year the number of graduates with CIS degrees and certificates to prepare students for High Tech jobs.

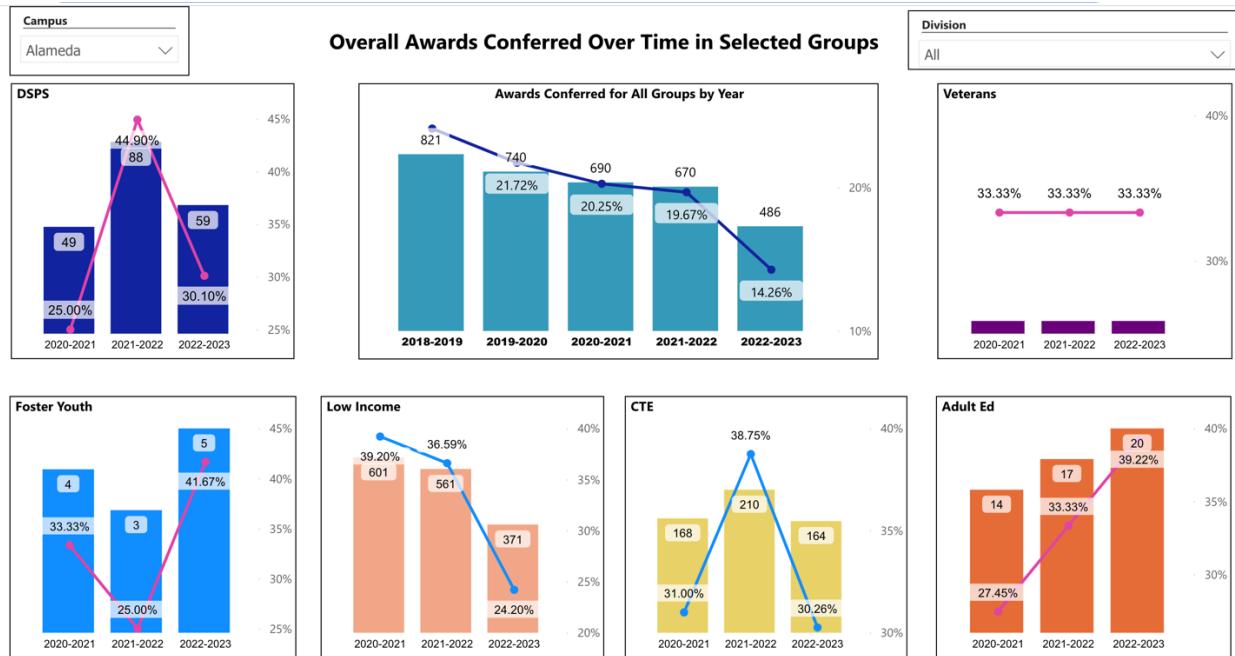
Program Goal	Increase Student Enrollment in CIS classes
Status: In-Progress or Complete?	In Progress. Late start hybrid evening classes in CIS 1 and CIS 5 classes have full enrollment at 40 with over 10 students on waiting list.
Which college or district goal is aligned with your program goal?	COA Goal #1 – Advance COA Teaching and Learning PCCD Goal #1 – Advance Student Access, Equity, and Success Vision for Success – Goal 1: Over the next five years, we will work on increasing 10% per year the number of graduates with CIS degrees and certificates to prepare students for High Tech jobs.

Program Goal	Increase Student Completion in CIS classes
Status: In-Progress or Complete?	In Progress. Students register for online or hybrid classes but some do not show up for class meetings and fail to drop classes on time. Frequent reminders for attendance and/or immediate drops on student registered can help decrease drops from classes.
Which college or district goal is aligned with your program goal?	COA Goal #2 – Increase retention and persistence rates PCCD Goal #2 – Engage and Leverage Partners Vision for Success – Goal 2: Over five years, increase by 10 percent the number of COA students transferring annually to a UC or CSU.

Program Update

Using the dashboards, review and reflect upon the data for your program.

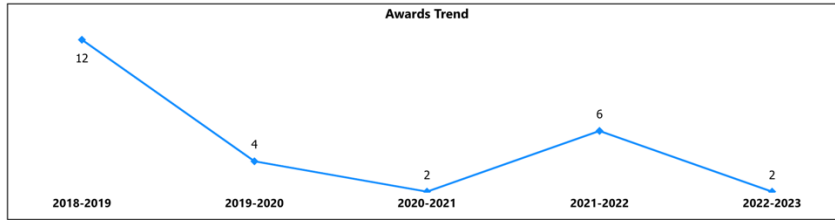
Degrees and Certificates Dashboard



COMMENTS: Awards conferred for all groups by year has been declining. During PRE-pandemic (2018-2019) years, Degrees and Certificates conferred were at its peak at 821. During pandemic (2019-2022) years, Awards have remained stable around 740 – 690 – 670 when all classes were offered online. During POST-pandemic (2022-2023), Awards have declined to all time low of 486 graduates. This is the result of lack of live face-to-face instructions and limited office hours of academic counseling, library, bookstores, and other student services. Campus during those pandemic years look like a ghost town with hardly any traffic and activity on site.

Degrees and Certificates Awards Trend

To view degrees and certificates conferred by college or subject, start with the right filters. Data can be disaggregated by subgroups to the lower right.



Academic Year	Campus	Division	Description	Degree Type	Award Counts
2022-2023	Alameda	Science, Technology, Engineering & Math Division	Computer Information Systems	Associate in Arts	1
2022-2023	Alameda	Science, Technology, Engineering & Math Division	Computer Information Systems	Certificate of Achievement	1
2021-2022	Alameda	Science, Technology, Engineering & Math Division	CISCO Certified Network Associ	Certificate of Achievement	1
2021-2022	Alameda	Science, Technology, Engineering & Math Division	Computer Information Systems	Associate in Arts	3
2021-2022	Alameda	Science, Technology, Engineering & Math Division	Computer Information Systems	Certificate of Achievement	2
2020-2021	Alameda	Science, Technology, Engineering & Math Division	Computer Information Systems	Associate in Arts	1
2020-2021	Alameda	Science, Technology, Engineering	Computer Information Systems	Certificate of Achievement	1
Total					26

Campus
Alameda

Academic Year
All

Division
All

Degree Type
All

Award Type
All

Subject
CIS

Age
All

CTE Status
All

Ethnicity
All

Gender
All

Subgroups

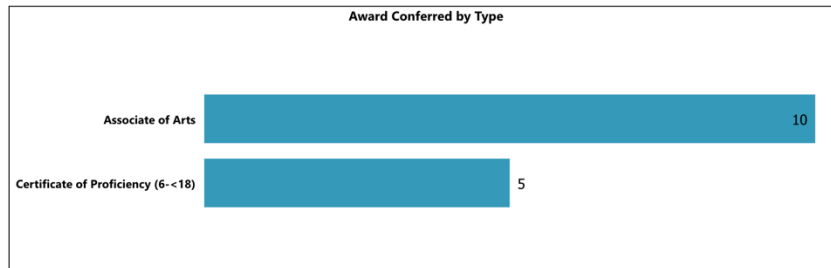
Service Area
All

Student Group
All

COMMENTS: With overall awards conferred for all groups by year that have been declining, similarly the Award of CIS has declined from 1988-2023. We will work toward increasing CIS degree awards by working closely with our academic counselors and transfer department.

Degrees and Certificates Conferred by Type

To view degrees and certificates conferred by college or subject, start with the right filters. Data can be disaggregated by subgroups to the lower right.



Academic Year	Campus	Division	Degree Type	Award Counts
2018-2019	Alameda	Science, Technology, Engineering & Math Division	Associate in Arts	4
2018-2019	Alameda	Science, Technology, Engineering & Math Division	Certificate of Achievement	4
2018-2019	Alameda	Science, Technology, Engineering & Math Division	Certificate of Proficiency	4
2019-2020	Alameda	Science, Technology, Engineering & Math Division	Associate in Arts	1
2019-2020	Alameda	Science, Technology, Engineering & Math Division	Certificate of Achievement	2
2019-2020	Alameda	Science, Technology, Engineering & Math Division	Certificate of Proficiency	1
2020-2021	Alameda	Science, Technology, Engineering & Math Division	Associate in Arts	1
2020-2021	Alameda	Science, Technoloav, Enaineerina & Math	Certificate of Achievement	1
Total				26

Campus
Alameda

Academic Year
All

Division
All

Degree Type
All

Award Type
All

Subject
CIS

Age
All

CTE Status
All

Ethnicity
All

Gender
All

Subgroups

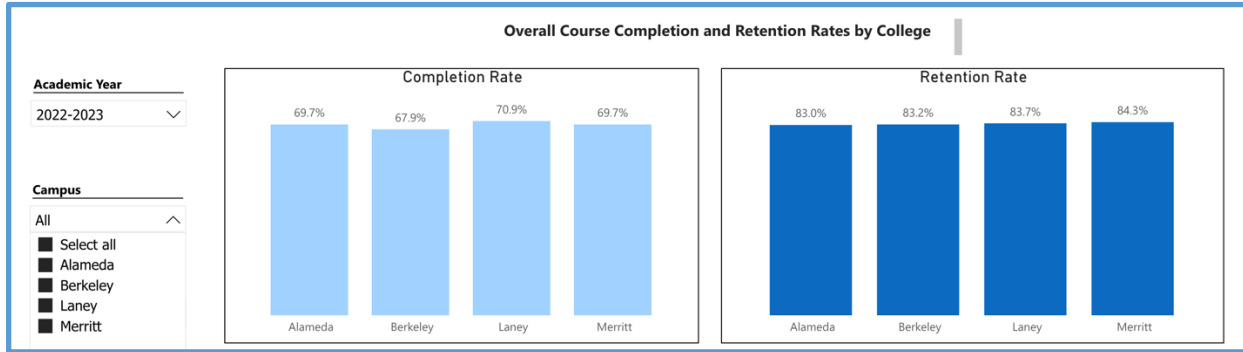
Service Area
All

Student Group
All

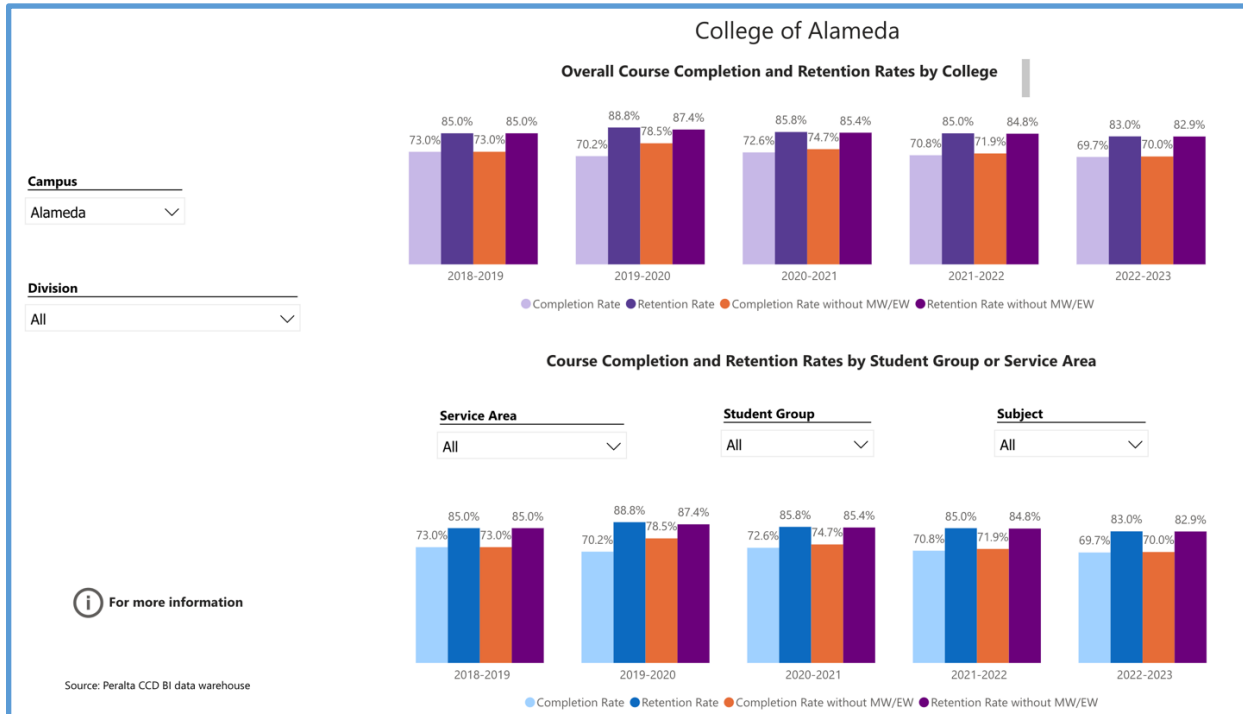
Source: Peralta CCD BI data warehouse

COMMENTS: During the period of 2018 to 2023, COA awarded 10 CIS Associate Degrees and 5 Certificates of Proficiency. We will work toward increasing CIS degree awards by working closely with our academic counselors and transfer department.

Course Completion and Retention Rates – Instructional Dashboard
Course Completion and Retention Rates – Student Services Dashboard



COMMENTS: During the period of 2018 to 2023, COA overall completion rate ranks second with 69.7% and overall retention rate ranks second with 83.0%



COMMENTS: For the period of 2018 to 2019, COA completion rates 73.0% while retention rates 85.0%. For the period of 2019 to 2020, COA completion rates 70.2% while retention rates 88.8%. For the period of 2020 to 2021, COA completion rates 72.6% while retention rates 85.8%. For the period of 2021 to 2022, COA completion rates 70.8% while retention rates 85.0%. For the period of 2022 to 2023, COA completion rates 69.7% while retention rates 83.0%

Course Completion and Retention Rates by Student Group or Service Area

Academic Year
2022-2023

Campus
Alameda

Division
Science, Technology, Enginee...

Service Area

- ANTHR
- ASTR
- BIOL
- CHEM
- CIS
- GEOG
- GEOL
- HLTED
- KIN
- MATU

CIS

Academic Year	Gender	Headcount	Census Enrollment	Completion Rate	Retention Rate	Completion Rate*	Retention Rate*
2022-2023	F	196	209	51.7%	71.5%	52.2%	71.2%
2022-2023	M	191	214	48.6%	70.1%	48.6%	70.1%
2022-2023	X	8	10	70.0%	80.0%	70.0%	80.0%
Total		395	433	50.6%	71.0%	50.8%	70.9%

Academic Year	Age	Headcount	Census Enrollment	Completion Rate	Retention Rate	Completion Rate*	Retention Rate*
2022-2023	16-18	33	33	51.5%	78.8%	51.5%	78.8%
2022-2023	19-24	125	135	52.2%	69.4%	52.2%	69.4%
2022-2023	25-29	69	75	53.3%	69.3%	53.3%	69.3%
2022-2023	30-34	52	60	48.3%	71.7%	50.0%	70.7%
2022-2023	35-54	93	105	45.2%	71.2%	45.2%	71.2%
2022-2023	55-64	13	15	53.3%	73.3%	53.3%	73.3%
2022-2023	65 & Above	6	6	50.0%	50.0%	50.0%	50.0%
Total		391	429	50.1%	70.7%	50.4%	70.6%

Academic Year	Ethnicity	Headcount	Census Enrollment	Completion Rate	Retention Rate	Completion Rate*	Retention Rate*
2022-2023	Asian	110	119	66.4%	79.0%	66.4%	79.0%
2022-2023	Black / African American	87	95	41.1%	67.4%	41.1%	67.4%
2022-2023	Hispanic / Latino	112	122	48.8%	69.4%	49.6%	68.9%
2022-2023	Two or More	27	32	21.9%	53.1%	21.9%	53.1%
2022-2023	White	51	57	51.8%	71.4%	51.8%	71.4%
Total		387	425	50.4%	70.7%	50.6%	70.5%

For more information

Note: Gender, Age and Ethnicity Groups that are greater than 5 are shown in this report.

* Excluding MW and EW grades

COMMENTS: For the period of 2022 to 2023, CIS Course Completion and Retention Numbers and Rates by Student Group or Service Area show the following frequencies.

Based upon GENDER, female CIS students with 196 exceed male CIS students with 191 and with X (undeclared, nonbinary) CIS students with 8. Respectively, female students have completion rates of 51.7% (52.2% adjusted) and retention rates of 71.5% (71.2%). Male students have (initial and adjusted) completion rates of 48.6% and retention rates of 70.1%. X (undeclared, binary) students have (initial and adjusted) completion rates of 70% and retention rates of 80%. Hence, female students outnumber male and X students while X students have greatest completion and retention rates.

Based upon AGE, top three largest groups are those in the (1) 19-24 recent high school graduates with 125 students, (2) 35-54 middle age professionals with 93 students, and (3) 25-29 recently employed young adults with 69 students. Top completion rates belong to the (1) 25-29 recently employed young adults at 53.3% completion rate tied with 55-64 semi-retired students, (2) 19-24 recent high school graduates with 52.2% completion rate, and (3) 16-18 high school students with 51.5% completion rate. Top retention rates belong to the (1) 16-18 high school students with 78.8% retention rate, (2) 55-64 semi-retired students with 73.3% completion rate, and (3) 30-34 upwardly mobile students with 71.7% completion rate.

Based upon ETHNICITY, top three largest groups are (1) Hispanic/Latin with 112 CIS students, (2) Asians with 110 CIS students, and (3) Black/African-Americans with 87 CIS students. Top completion rates belong to (1) Asians with 66.4% completion rate, (2) Whites with 51.8% completion rate, and (3) Hispanic/Latinos with 48.8% completion rate. Top retention rates belong to (1) Asians with 79.0% retention rate, (2) Whites with 71.4% retention rate, and (3) Hispanic/Latinos with 69.4% rate.

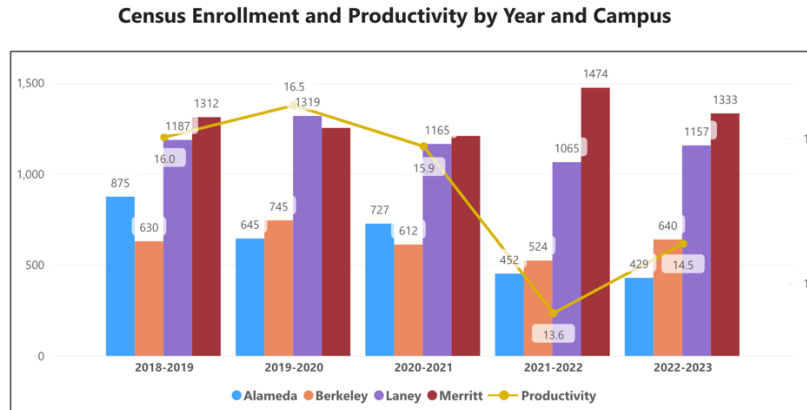
Enrollment Trends and Productivity Dashboard

Campus
All

Term, STRM
All

- BUS
- CARP
- CHDEV
- CHEM
- CHIN
- CIS
- COMM
- CONMT
- COPED
- COSER

CIS



Academic Year	Term	Campus	Division	Census Enrollment	FTES	FTEF	Productivity
2022-2023	Fall	Alameda	Science, Technology, Engineering & Math Division	266	43.22	2.90	14.9
2022-2023	Spring	Alameda	Science, Technology, Engineering & Math Division	163	22.54	1.69	13.4
2022-2023	Fall	Berkeley	Math, Science and Career Education	302	63.93	4.23	15.1
2022-2023	Spring	Berkeley	Math, Science and Career Education	329	63.95	4.32	14.8
2022-2023	Summer	Berkeley	Math, Science and Career Education	9	1.79	0.36	5.0
2022-2023	Fall	Laney	Mathematics and Sciences	442	92.17	6.43	14.3
2022-2023	Spring	Laney	Mathematics and Sciences	537	107.94	7.18	15.0
2022-2023	Summer	Laney	Mathematics and Sciences	178	38.36	2.56	15.0
2022-2023	Fall	Merritt	Math, Science, and Technology (Division II)	529	85.80	6.06	14.2
2022-2023	Spring	Merritt	Math, Science, and Technology (Division II)	682	84.14	5.66	14.1

i For more information

Source: Peralta CCD BI data warehouse

Credit Status
All

Basic Skills
All

Distance Ed
All

Dual Enroll
All

Transferable
All

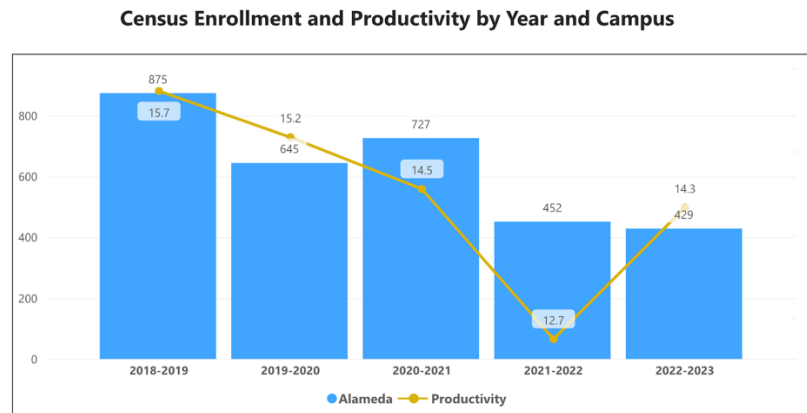
Campus
Alameda

Term, STRM
All

Division
All

Subject
CIS

Course
All



Academic Year	Term	Campus	Division	Census Enrollment	FTES	FTEF	Productivity
2022-2023	Fall	Alameda	Science, Technology, Engineering & Math Division	266	43.22	2.90	14.9
2022-2023	Spring	Alameda	Science, Technology, Engineering & Math Division	163	22.54	1.69	13.4
2021-2022	Fall	Alameda	Science, Technology, Engineering & Math Division	278	46.67	3.37	13.8
2021-2022	Spring	Alameda	Science, Technology, Engineering & Math Division	174	24.93	2.25	11.1
2020-2021	Fall	Alameda	Science, Technology, Engineering & Math Division	265	46.52	3.15	14.8
2020-2021	Spring	Alameda	Science, Technology, Engineering & Math Division	313	51.17	3.85	13.3

i For more information

Source: Peralta CCD BI data warehouse

Enrollment Trends and Productivity among CIS students have declined both at College of Alameda and across other Peralta Community College District from 2018 through 2022 due to the pandemic. With the return of live face-to-face classroom meetings and partly open student service offices from 2022 to 2023, enrollment and productivity are beginning to increase.

Describe any significant changes and discuss what the changes mean to your program. Consider whether performance gaps exist for disproportionality impacted students by using filters to disaggregate the data. Focus upon the most recent year and/or the years since your last comprehensive program review. Cite data points to support your reflection.

See page 7 enrollment trends and productivity above.

College of Alameda (COA) enrollment and productivity lags being the last or second to the last with Berkeley. Laney offering lots more programming classes consistently gain high enrollment, more than COA and Berkeley combined. Merritt remains consistently at the Top with most enrollment and productivity. Thanks to the well-funded online/hybrid cybersecurity certificate program and the Associate of Science in computer science degree started by Anita Black before she retired and passed away.

Due to a blunder in 2010 by our CIS Department Coordinator who abandoned scheduling programming classes, we lost good instructors and CIS students to Laney College. CIS full-time faculty declined from 8 to 1 and part-time instructors declined from 12 to 4 in the periods of 2010 to 2023. We hope to reverse this decline. We hired a new full-time CIS instructor who will start in 2024. We will start offering more hard skill tech job programming classes.

During Fall 2023, we started offering CIS 5 Computer. Our class enrollment exceeded our expectations with full class size of 40 registered students and 12 students on the waiting list. During Spring 2024, we will offer the succeeding CIS 6 Computer Programming class with CIS 5 as its prerequisite. We expect continued increase in our enrollment.

According to 2023 US News and World Report (<https://money.usnews.com/careers/best-jobs/rankings/best-technology-jobs>), the TOP TECH JOBS are as follow..

TOP TEN TECH JOBS	Projected Jobs	Median Salary
1. Software Developer	370,000 jobs	\$120,730
2. Info. Security Analyst	56,500 jobs	\$102,600
3. Info. Tech. Manager	82,400 jobs	\$159,010
4. Web Developer	28,900 jobs	\$77,030
5. Comp. Systems Analyst	50,900 jobs	\$99,270
6. Data Scientists	40,500 jobs	\$100,910
7. Database Administrator	7,400 jobs	\$96,710
8. Network Architect	7,500 jobs	\$120,520
9. Systems Administrator	11,300 jobs	\$80,600
10. Desktop Support	42,700 jobs	\$49,770

By 2024 Fall, we'll start classes leading to Certificate in Data Analytics (Top 6 Tech Job). We'll continue offering classes leading to Certificate in Web Publishing (Top 4 Tech Job) and, subject to funds, also classes leading to Certificate in Desktop Support Technician (Top 10 Tech Job).

Describe the department's progress on Student Learning Outcomes (SLOs) and/or Service Area Outcomes (SAOs) since the last Program Review/APU.

Our Computer Information System (CIS) Department Student Learning Outcomes (SLOs) remain the same. There are three SLOs summarized in the acronym T-O-P for Technology, Operations, and Programming.

TERMINOLOGY -- Demonstrate understanding of computer concepts and terminologies.

Applicable to all CIS classes specially to

CIS 201 – Intro to Computer Hardware
CIS 205 – Computer Literacy
CIS 209 – Intro to Window
CIS 233 – Internet and Online Resources

OPERATIONS -- Perform (Windows) operating system functions e.g. using graphical user interface (GUI) or keyboard shortcuts to view directory, rename files, search for files, open files, edit and save files... with OFFICE PROFICIENCY -- Show ability to review, add, change, edit, save (RACES) files using Microsoft Office Suite which include Word for documents, Excel for spreadsheets, PowerPoint for slide presentations, and Access for database management.

Applicable specially to

CIS 1 – Computer Information Systems

CIS 40 – Database Management
CIS 42 – Spreadsheet Application
CIS 70 – Intro to Tableau Analytics

CIS 223A – Intro to Word
CIS 223B – Intro to Excel
CIS 223C – Intro to Access
CIS 223D – Intro to PowerPoint

CIS 226A – Desktop Support Technician I
CIS 226B – Desktop Support Technician II
CIS 227 – Word Processing for Legal Professionals

CIS 238A – Word Processing I
CIS 238B – Word Processing II
CIS 239 – Help-Desk Tools and Techniques

PROGRAMMING by Analyzing Problems and Designing Solutions: Consistent with the program life cycle, analyze problems and design solutions using HIPO charts and program logic flowcharts.

Applicable specially to

CIS 5 – Computer Science

CIS 6 – Computer Programming

CIS 23 – C# Programming

CIS 25 – Object-Oriented Programming using C++

CIS 97A – Oracle SQL and PL/SQL

CIS 121 – Intro to Statistical Software Programming

CIS 122 – Data Analysis Using Statistical Software

CIS 123 – Intro to Big Data and Analytics

CIS 234A – World Wide Web Publishing I

CIS 234B – World Wide Web Publishing II

CIS 234D – Web Authoring

CIS 234E – Creating an E-Commerce Web Site

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
Activity Suffix - ChartField3 Description 70100 – Information Technology	Base allocation for supplies	\$3,994	Unused

Submitted by 2023-2024 CIS Chair: **Anthony Villegas**

Prioritized Resource Requests Summary

In the boxes below, please add resource requests for your program. If there are no resource requested, leave the boxes blank.

Resource Category	Description/Justification	Total Estimated Cost
Personnel: Classified Staff		
Personnel: Student Worker		
Personnel: Part Time Faculty		
Personnel: Full Time Faculty		

Resource Category	Description/Justification	Total Estimated Cost
Professional Development: Department wide PD needed		
Professional Development: Personal/Individual PD needed		
Supplies: Software		
Supplies: Books, Magazines, and/or Periodicals		
Supplies: Instructional Supplies		
Supplies: Non-Instructional Supplies		
Supplies: Library Collections		
Technology & Equipment		
Library: Library materials/collections		
Facilities: Classrooms/Labs		
Facilities: Offices		
Other		