

# Career Technical Education - City College of San Francisco Advisory Committee Meetings Form

CTE Program: Computer Networking & Information Technology (CNIT) Department Chair: Richard Taha

Name of person completing this form: Steven Nelson, Employment Specialist and Meeting Convener and Facilitator

Date completed: June 30, 2022.

## Section 1. Overview

**All Career Technical Education (CTE) programs are required to:**

1. **Ensure the CTE Advisory Committee is comprised of a diverse group of individuals:**
  - a. representatives from within the program (faculty, classified, students); and
  - b. individuals external to the college who are actively involved in a variety of segments related to the workforce industry (e.g. local business leaders, compliance and licensing, industry employment agencies and associations).
2. **Meet with the CTE Advisory Committee** at least once per year.
3. **Document the meeting** by following sections 2 and 3 included in this template; and
4. **Submit the signed documentation** to Academic Affairs through the CCSF Office of Workforce and Economic Development (Cloud Hall 308) within 30 days of the meeting.

All CTE programs are encouraged to use a variety of approaches to engage with industry partners, as regularly as possible, to engage in robust and on-going conversations for continuous program improvement. Failure to meet these requirements may impact a program's ability to qualify for college funding (for example, Strong Workforce Program and Perkins funds).

### How to meet the requirement:

1. Confirm Members and Membership on the Advisory Committee ([http://www.ccsf.edu/en/educational-programs/cte/cte\\_advisory\\_committees.html](http://www.ccsf.edu/en/educational-programs/cte/cte_advisory_committees.html));
  - a. if updates are needed on the webpage, send details to John Halpin (jhalpin@ccsf.edu)
2. Communicate, confirm, and record below your meeting date, time, and location:

Date: 6/7/22 Times: 6:30 pm – 8:30 pm Location: CCSF Zoom Video Conference

3. Create your meeting agenda to address the required areas in Section 3;
4. Disseminate meeting materials (for example: Agenda, Program Review, SLO assessment data, Perkins Core Indicators, Labor Market Information, Certification Passage Rates);
5. Conduct the meeting, keeping minutes/notes of the discussion, using Section 2 to account for meeting participation by both internal and external attendees;
6. Document your meeting in the following way:
  - a. Record attendance and contact information using Section 2 form, feel free to use more than one page;
  - b. Synthesize the outcomes of the meeting discussion, completely filling out Section 3 of this template (CTE Advisory Committee Meeting Minutes);
  - c. Submit this completed form, sections 1, 2, and 3 with a Department Chair signature, along with a copy of the meeting agenda, within 30 days to your Dean.
  - d. Deans need to sign and then forward to the Office of Workforce and Economic Development to the attention of John Halpin, jhalpin@ccsf.edu.

Faculty resources, including templates and suggested best practices, are available [http://www.ccsf.edu/en/educational-programs/cte/cte\\_advisory\\_committees.html](http://www.ccsf.edu/en/educational-programs/cte/cte_advisory_committees.html)

**Section 2. Advisory Committee Members in Attendance****Meeting Date: June 7, 2022****CTE Program: CNIT*****(External Members) Employers, Industry Associations, Professionals employed in the field***

<b>Name</b>	<b>Position</b>	<b>Business Name Address</b>	<b>Phone</b>	<b>Email</b>	<b>Signature</b>
Matthew James	Partner	Intivix 605 Market Street San Francisco, CA 94105	(15 363- 9518	mjames@intivix.com	Attended via Zoom
Oubah Awaleh	CNIT Alumni and Full Stack Developer	Accenture 415 Mission Street, 35 <sup>th</sup> Floor San Francisco, CA 94105	415 537- 5700	oawaleh@mail.ccsf.edu	Attended via Zoom
Jimmy Mai	CNIT Alumni Computer Systems Engineer	Berkeley Labs 1 Cyclotron Road Berkeley, CA 94720	510 486- 4000	jmai@lbl.gov	Attended via Zoom

***(Internal Members) Faculty, Administrators, Classified Staff, Students***

<b>Name</b>	<b>Position</b>	<b>Faculty/Administrators/Classified/Student</b>	<b>Email</b>	<b>Signature</b>
Richard Taha	CNIT Dept. Chair	Faculty	rtaha@ccsf.edu	Virtual Attendee
Claudia Da Silva	Faculty	Faculty	cdasilva@ccsf.edu	Virtual Attendee
Richard Wu	Faculty	Faculty	rwu@ccsf.edu	Virtual Attendee
Oubah Awaleh	Student	Student/Industry	oawaleh@mail.ccsf.edu	Virtual Attendee
Steven Nelson	Employment Specialist	Classified	snelson@ccsf.edu	Virtual Attendee
Sandy Jones	Faculty	Faculty	sjones@ccsf.edu	Virtual Attendee

## Section 3. CTE Advisory Committee Meeting Minutes

CTE Program: CNIT

Meeting Date: June 7 , 2022

### 1. Program Review and Feedback

The Computer Network and Information Technology (CNIT) program has an A.S. degree with concentrations in the following areas:

- Computer Technical Support
- Front End Web Development
- Network Security (Cybersecurity)
- Network Infrastructure (Wireless, Cisco, Windows)
- Maker Studies/Internet of Things
- Cloud Technology

There are 15 certificate programs within the 6 focus areas.

All of the 6 areas were represented by faculty, prior/current students, and industry representatives. Each program area was presented by faculty, and input solicited from employers and students

From former students, the primary feedback was that students could benefit from more hands-on opportunities to learn, such as internships and apprenticeships, as well as with CCSF alumni who are working in the I.T. field. It was also mentioned that we should teach more back-end web development and that the department should secure inexpensive virtual environments in which students can practice web application development with the latest frameworks and other web development tools. Learning Github was also suggested.

From the industry employers, the main feedback for the Tech Support program was that we should teach both system administration and support for the *Windows and Mac* operating systems and their most-used office software suites such as MS Office365. They also mentioned the importance of teaching the basics of helpdesk ticketing systems and how to look issues up online and how to write a ticket. In addition, it was suggested that students take courses that prepare them for the entry-level CompTia certification exams such as A+, Network+, and Security+. For Network Infrastructure, it was recommended that virtual networking be taught as well, along with courses for Azure and AWS entry-level certification. For Web Development, see the comments made in the prior paragraph.

The only comments made on changing or improving the cybersecurity program were to add cloud security, particularly as it pertains to AWS.

## **2. Student Learning Outcomes addressing Program Requirements and Course Content Review and Feedback**

SLOs for Computer Technical Support: The major suggested additions to the program requirements are teaching students virtual machine technologies, more hands-on learning in the form of internships, adding support for Macs and the most common office productivity suites (MS Office 365), and increasing opportunities for engagement with employers.

SLOs for Front End Web Development: The major suggested additions to the program requirements are teach web application development frameworks, Github, and secure free or low-cost web development hosting and development platforms on which to learn the latest tools.

SLOs for Network Security (Cybersecurity): Given that virtual networking and its application to Network Security provides new network security challenges while removing some other previous weaknesses of physical networks in general. The addition of Cloud courses such as Azure and AWS, along with teaching their new security policies, enhances our Network Security offering.

SLOs for Network Infrastructure (Cisco, Windows, Wireless): One year ago, Cisco revamped the Cisco Network Academy courses, and the changes are now implemented in the City College curriculum. We are now teaching Azure and AWS along with other windows networking courses, and the move will continue towards more training for virtual environments. Our most up-to-date wireless courses are taught in the Wireless Networking course.

## **3. Perkins Core Indicators for CCSF including Class Pass Rates, Persistence, Completion and Employment Outcomes; and where applicable, Licensure and State Certification Pass Rates Review and Feedback. All numbers pulled from 2020-2021 reports or the most recent data available at the CCCO Perkins V data portal. Disregard the “Cohort Year” number -this only refers to the date interval that is the base for the percent changes going forward from that time period. (See next 5 pages.)**

**SAN FRANCISCO CITY COLLEGE**

**070100 Information Technology, General - Cohort Yr: 2017- 2018**

	Core 1 Postsecondary Retention & Placement			Core 2 Earned Postsecondary Credential		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	50.00	1	2	100.00	2	2
Female		0	0		0	0
Male	50.00	1	2	100.00	2	2
Individuals Preparing for Non-Traditional Fields		0	0		0	0
Out of Workforce Individuals		0	0		0	0
Individuals with Economically Disadvantaged Families	50.00	1	2	100.00	2	2
English Learners		0	0		0	0
Single Parents		0	0		0	0
Individuals with Disabilities		0	0		0	0
Technical Preparation		0	0		0	0
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0
District	50.00	1	2	100.00	2	2
State	96.44	29,271	30,353	50.37	3,308	6,568

	Core 4 Employment		
	Percent	Count	Total
Program Area Total	50.00	1	2
Female		0	0
Male	50.00	1	2
Individuals Preparing for Non-Traditional Fields		0	0
Out of Workforce Individuals		0	0
Individuals with Economically Disadvantaged Families	50.00	1	2
English Learners		0	0
Single Parents		0	0
Individuals with Disabilities		0	0
Technical Preparation		0	0
Homeless Individuals		0	0
Youth in Foster Care		0	0
Youth with Parent in Active Military		0	0
District	50.00	1	2
State	72.38	3,418	4,722

	Core 3 Non-traditional Program Enrollment		
	Percent	Count	Total
	0.00	0	2
		0	0
	0.00	0	2
	0.00	0	2
		0	0
	0.00	0	2
		0	0
		0	0
		0	0
		0	0
		0	0
		0	0
		0	0
		0	0
		0	0
		0	0
	0.00	0	2
	21.07	9,025	42,843

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed.

Performance Rate Less Than Goal is Shaded

- Core 1 - Postsecondary Retention & Placement: 91.15% Performance Goal - ( 2017- 2018)
- Core 2 - Earned Postsecondary Credential: 89.00% Performance Goal - ( 2017- 2018)
- Core 3 - Non-traditional Program Enrollment: Greater than 25.52% Participation - ( 2017- 2018)
- Core 4 - Employment: 73.23% Performance Goal - ( 2017- 2018)

# SAN FRANCISCO CITY COLLEGE

## 070810 Computer Networking - Cohort Yr: 2017- 2018

	Core 1 Postsecondary Retention & Placement			Core 2 Earned Postsecondary Credential		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	95.20	238	250	62.50	25	40
Female	94.87	37	39	80.00	4	5
Male	94.95	188	198	57.58	19	33
Individuals Preparing for Non-Traditional Fields	94.87	37	39	80.00	4	5
Out of Workforce Individuals	92.00	23	25	0.00	0	2
Individuals with Economically Disadvantaged Families	97.60	122	125	87.50	14	16
English Learners	100.00	13	13	100.00	3	3
Single Parents	90.91	10	11		0	0
Individuals with Disabilities	100.00	21	21	100.00	2	2
Technical Preparation	100.00	1	1		0	0
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0
District	95.20	238	250	62.50	25	40
State	94.43	12,540	13,280	89.54	5,600	6,254
	Core 4 Employment			Core 3 Non-traditional Program Enrollment		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	70.91	39	55	16.28	49	301
Female	77.78	7	9	100.00	49	49
Male	68.18	30	44	0.00	0	238
Individuals Preparing for Non-Traditional Fields	77.78	7	9	16.28	49	301
Out of Workforce Individuals	50.00	2	4	24.24	8	33
Individuals with Economically Disadvantaged Families	63.16	12	19	18.95	29	153
English Learners	100.00	3	3	35.29	6	17
Single Parents	0.00	0	1	28.57	4	14
Individuals with Disabilities	100.00	2	2	22.22	6	27
Technical Preparation		0	0	0.00	0	2
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0

District  
State

70.91	39	55
74.70	4,549	6,090

16.28	49	301
13.81	2,788	20,183

**The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed.**

Performance Rate Less Than Goal is Shaded

Core 1 - Postsecondary Retention & Placement: 91.15% Performance Goal - ( 2017- 2018)

Core 2 - Earned Postsecondary Credential: 89.00% Performance Goal - ( 2017- 2018)

Core 3 - Non-traditional Program Enrollment: Greater than 25.52% Participation - ( 2017- 2018)

Core 4 - Employment: 73.23% Performance Goal - ( 2017- 2018)



**SAN FRANCISCO CITY COLLEGE**

**070800 Computer Infrastructure and Support - Cohort Yr: 2017- 2018**

	Core 1 Postsecondary Retention & Placement			Core 2 Earned Postsecondary Credential		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	97.73	43	44	100.00	47	47
Female	100.00	8	8	100.00	8	8
Male	97.22	35	36	100.00	39	39
Individuals Preparing for Non-Traditional Fields	100.00	8	8	100.00	8	8
Out of Workforce Individuals	80.00	4	5	100.00	6	6
Individuals with Economically Disadvantaged Families	95.83	23	24	100.00	27	27
English Learners	50.00	1	2	100.00	2	2
Single Parents		0	0		0	0
Individuals with Disabilities	100.00	6	6	100.00	6	6
Technical Preparation	100.00	1	1	100.00	1	1
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0
District	97.73	43	44	100.00	47	47
State	94.88	6,474	6,823	83.73	2,311	2,760

	Core 4 Employment		
	Percent	Count	Total
Program Area Total	86.11	31	36
Female	87.50	7	8
Male	85.71	24	28
Individuals Preparing for Non-Traditional Fields	87.50	7	8
Out of Workforce Individuals	80.00	4	5
Individuals with Economically Disadvantaged Families	77.27	17	22
English Learners	50.00	1	2
Single Parents		0	0
Individuals with Disabilities	60.00	3	5
Technical Preparation	100.00	1	1
Homeless Individuals		0	0
Youth in Foster Care		0	0
Youth with Parent in Active Military		0	0

District	86.11	31	36
State	73.65	1,873	2,543

	Core 3 Non-traditional Program Enrollment		
	Percent	Count	Total
	16.33	8	49
	100.00	8	8
	0.00	0	41
	16.33	8	49
	33.33	2	6
	11.11	3	27
	0.00	0	2
		0	0
	16.67	1	6
	100.00	1	1
		0	0
		0	0
		0	0

	16.33	8	49
	12.99	1,352	10,410

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed.

Performance Rate Less Than Goal is Shaded

Core 1 - Postsecondary Retention & Placement: 91.15% Performance Goal - ( 2017- 2018)

Core 2 - Earned Postsecondary Credential: 89.00% Performance Goal - ( 2017- 2018)

Core 3 - Non-traditional Program Enrollment: Greater than 25.52% Participation - ( 2017- 2018)

Core 4 - Employment: 73.23% Performance Goal - ( 2017- 2018)

**SAN FRANCISCO CITY COLLEGE**

**070900 World Wide Web Administration - Cohort Yr: 2017- 2018**

	Core 1 Postsecondary Retention & Placement			Core 2 Earned Postsecondary Credential		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	60.00	3	5	80.00	4	5
Female	33.33	1	3	66.67	2	3
Male	100.00	2	2	100.00	2	2
Individuals Preparing for Non-Traditional Fields		0	0		0	0
Out of Workforce Individuals		0	0		0	0
Individuals with Economically Disadvantaged Families	50.00	1	2	100.00	1	1
English Learners	100.00	1	1	100.00	1	1
Single Parents		0	0		0	0
Individuals with Disabilities		0	0		0	0
Technical Preparation		0	0		0	0
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0
District	60.00	3	5	80.00	4	5
State	92.12	1,087	1,180	91.67	418	456

	Core 4 Employment			Core 3 Non-traditional Program Enrollment		
	Percent	Count	Total	Percent	Count	Total
Program Area Total	0.00	0	4		0	0
Female	0.00	0	3		0	0
Male	0.00	0	1		0	0
Individuals Preparing for Non-Traditional Fields		0	0		0	0
Out of Workforce Individuals		0	0		0	0
Individuals with Economically Disadvantaged Families	0.00	0	1		0	0
English Learners	0.00	0	1		0	0
Single Parents		0	0		0	0
Individuals with Disabilities		0	0		0	0
Technical Preparation		0	0		0	0
Homeless Individuals		0	0		0	0
Youth in Foster Care		0	0		0	0
Youth with Parent in Active Military		0	0		0	0
District	0.00	0	4		0	0
State	73.25	304	415		0	0

The DR notation indicates privacy requirements - EDD requires that counts less than six not be displayed.

Performance Rate Less Than Goal is Shaded

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- Core 2 - Earned Postsecondary Credential: 89.00% Performance Goal - ( 2017- 2018)
- Core 3 - Non-traditional Program Enrollment: Greater than 25.52% Participation - ( 2017- 2018)
- Core 4 - Employment: 73.23% Performance Goal - ( 2017- 2018)

**4. Labor Market Information demonstrating program continues to meet Labor Market Demand and does not represent unnecessary duplication with other programs in the region, review and feedback.**

**Response: According to the projected occupational growth rates in the table below, it appears that there is a growing and very substantial need for Informational Technology workers in all of the key areas in which City College of San Francisco has a focus. Also, San Francisco generally has the highest need in the region for Information Technology workers when compared to other localities in the region.**

<u>Projected Occupational Growth Rates in CA 2014-2024 (CA EDD)</u> Technical Support 24.6% Web Development 48.3% Networking 19.8% Cloud 20% annualized (Gartner – approximate based on estimates from multiple sources) Cybersecurity 28% growth rate from 2016-2026 (US BLS)
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**5. Overall Recommendations for the program**

- Increase Cloud and serverless offerings, especially AWS.
- Increase exposure to most commonly used cloud apps such as Office365 from an enterprise perspective (i.e., installation, maintenance, configuration, and app support).
- Increase hands on experiential opportunities for students (internships).
- Increase opportunities for students to engage with employers.
- Increase offerings for learning Javascript frameworks and Github.
- Find inexpensive virtual environments for practicing web app development and other IT.
- Add training in help/service desk and customer service as well as how to use ticketing systems and troubleshoot IT issues by looking them up online.

**6. Planned Action Steps** based on feedback.

The CNIT program will continue to evaluate its courses, degrees, and certificate offerings and retire and add new courses as appropriate to industry demand for those skills. Specific action steps will include:

- Looking closely at those areas within our IT offerings that are evolving most rapidly, such as Tech Support, and making sure that our courses include teaching students the topics that employers are asking for, such as ticketing systems and customer service and familiarity with supporting enterprise, cloud-based applications.
- Procuring web-hosting services that support web development frameworks that are necessary for developing software in the real-world workplace. Perhaps not always just opting for the free options but building this into the budget.
- Creating more opportunities for students to engage with employers through internships, and other work-based learning opportunities.
- Add security content to our virtualization courses (AWS and Microsoft Azure)

**Next Meeting Date:** May 2nd, 2023 **Time:** 6:30 pm-8:30 pm **Location:** Hybrid **Format:** Zoom and in-person

**Signatures:** Department Chair: \_\_\_\_\_

School Dean: \_\_\_\_\_

Associate Vice Chancellor: \_\_\_\_\_