# INSTRUCTIONAL COMPREHENSIVE PROGRAM PLANNING AND REVIEW (CPPR) FOR 2023

Only to be completed by those programs scheduled for the year according to the institutional comprehensive planning cycle for instructional programs (i.e., every four years for CTE programs and five years for all other instructional programs), which is produced by the Office of Instruction. Faculty should meet with their dean prior to beginning this process. Training is available to support faculty completing this work.

Cluster: Workforce Development Area of Study: Eng&Tech Program: CNET Current

Academic Year: 2023

Last Academic Year CPPR Completed: 2019 Current Date: 1/21/23

# NARRATIVE: INSTRUCTIONAL CPPR

Please use the following narrative outline:

I. Describe how this program review was conducted, including how all program members were involved in the planning process.

Gathering data from Advisory Committee, Institutional Research, Ca Chancellors office data, feedback from instructors

#### II. GENERAL PROGRAM INFORMATION

A. Program Mission

To train qualified Computer and Network Technicians to meet Industry Standards

B. Please highlight any changes and improvements since the last Comprehensive Program Review. Be sure to specifically indicate those changes that have been made in the program in order to address equity gaps.

The program has went through changes to make it more efficient including offering most courses only once a year, and downscaling the number of required degree units to 30. Also, all of courses have the option of running distance education sections for lecture, lab, or both. Based on the recent advisory committee meeting more changes have submitted to the curriculum committee to make the course offering more industry relavant at the same time making it more efficient.

These changes make the program more accessible to all students providing valuable training in a shorter more cost effective manner.

<sup>1</sup> San Luis Obispo County Community College District Instructional Comprehensive Program Planning & Review Approved by Academic Senate April 22, 2022 Document to be Used for Submission Spring, March 6, 2023

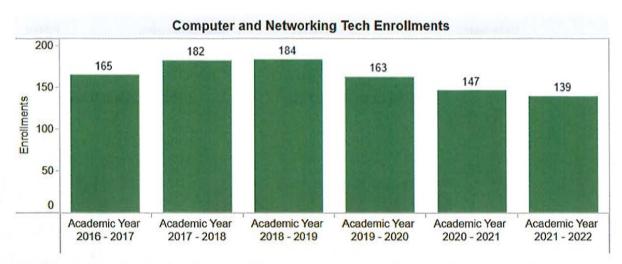
C. List all current full-time and part-time faculty in the program.

Chris Akelian (Lead Instructor), Alan Ross (Cisco Accademy lead), Don Repucci (part time but extremely valuable), Jefferey Velaguez (part time)

- III. PROGRAM SUPPORT OF DISTRICT'S MISSION STATEMENT, INSTITUTIONAL GOALS, INSTITUTIONAL OBJECTIVES, AND/OR INSTITUTIONAL LEARNING OUTCOMES
  - A. Identify how your program addresses or helps to achieve the <u>District's Mission</u>
    Statement.
    - Whether for personal growth or employment opportunities the CNET program offers training at a low cost to students to help themselves and the community.
  - B. Identify how your program addresses or helps to achieve the <u>District's Institutional Goals</u> and <u>Objectives</u>, and/or operational planning initiatives.
    - The CNET program has clearly met community needs as required of institutional goal 3 by providing a local technician base for entry level employees and also upgrade current employee skills.
  - C. Identify how your program helps students achieve <u>Institutional Learning Outcomes</u>. The CNET program meets several of the institutional categories inherently through understanding and applying complex technological concepts needed to maintain modern computer systems.
- IV. PROGRAM DATA ANALYSIS AND PROGRAM-SPECIFIC MEASUREMENTS
  (Where applicable the success metrics are aligned with the Student Success Metrics/SCFF).

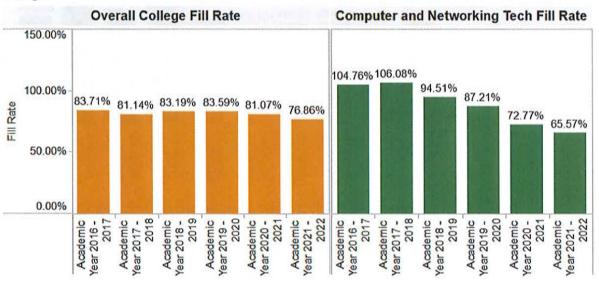
The data components are hyperlinked below.

A. General Enrollment (Insert Aggregated Data Chart) Insert the data chart and explain observed differences between the program and the college.



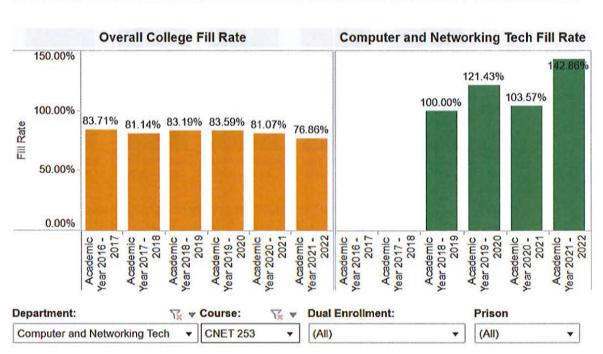
Clearly the Covid crisis has had an effect on program enrollments; however, other factors such as a fundamental shift in the way computers are used and maintained plays into the equation. At one time large set top boxes were common and attracted many younger students that were interested in building gaming computers. However, most interest waned with the transition to smaller more powerful laptops and notebooks which do not need component level understanding. As shown in later graphs the demographics have shifted to reentry students so recapturing younger students would help enrollments. Most likely Ethical hacking courses could draw that age group more effectively.

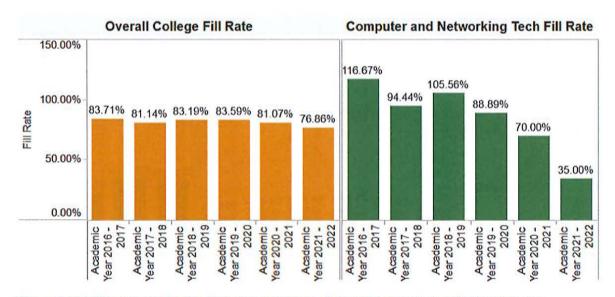
# B. General Student Demand (Fill Rate) (Insert Aggregated Data Chart) Insert the data chart and explain observed differences between the program and the college.



The fill rates track overall enrollment numbers with the same explanation but do not tell the whole story as noted below.





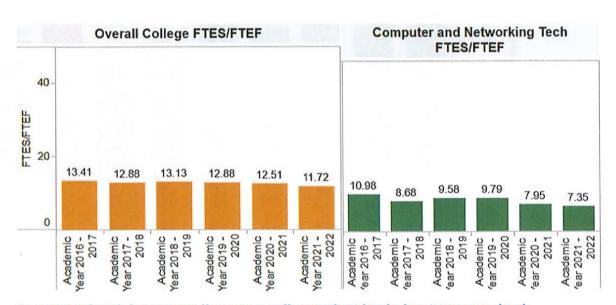


The overall fill rates hide the fact some courses faired better than others with the Covid crisis transition to online mode. The above two graphs comparing CNET 235 fully online with CNET 253 fully in-person show a dramatically different trend. Clearly the graphs show students do not want fully in-person classes but unfortunately the success rate is disproportionally affected with fully online courses as later graphs show.

# C. General Efficiency (FTES/FTEF) (Insert Aggregated Data Chart)

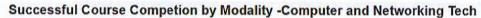
Insert the data chart and explain observed differences between the program and the college.

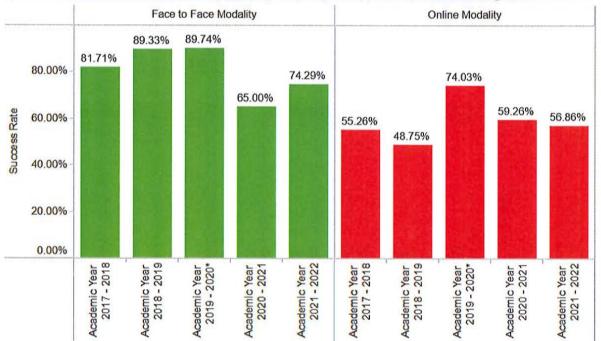




As expected with lower enrollments, smaller student loads, but instructor loads remaining about the same the ratio decreases. The only solution I can see near term would be to offer CNET 260 and 261 once a year and convert them from 9 weeks to semester based.

D. <u>Student Success—Course Completion by Modality (Insert Data Chart)</u>
Insert the data chart and explain observed differences between the program and the college.

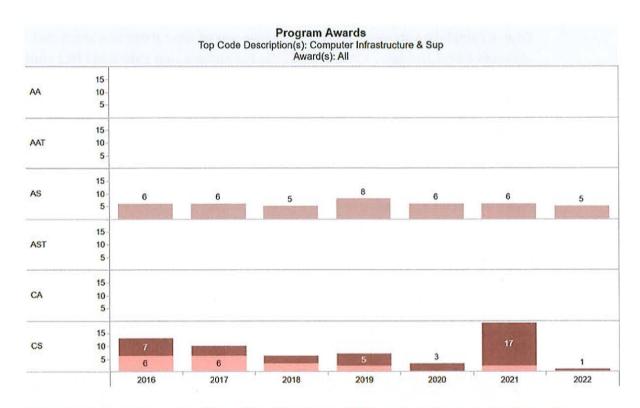




As previously mentioned even though they desire online courses they do not do as well in them a face to face. Most likely the complexity of CNET courses and frustration level of online lab work without immediate help factors in with the disparity. The other element was students were more motivated when they worked in face to face teams to help each other with problems.

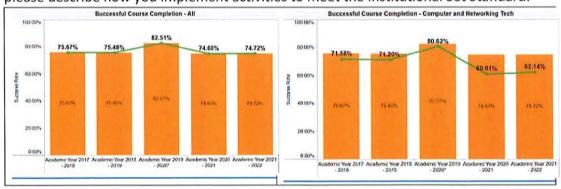
# E. Degrees and Certificates Awarded (Insert Data Chart)

Insert the data chart and explain observed differences between the program and the college.



Apparently there was a backlog of certificates in 2021 awarded automatically by the records department and in 2022 it did not follow. However the number degrees has remained about proportional to the number of students enrolled which is around 4 percent based on the raw numbers (but enrollments I think may count students for each class they are enrolled and isn't an accurate reflection of the percent of students who start the program finish it)

F. <u>General Student Success – Course Completion (Insert Aggregated Data Chart)</u>
Insert the data chart and explain observed differences between the program and
<u>Institutional Set Standard</u>. If your program did not meet the Institutional Set Standard,
please describe how you implement activities to meet the Institutional Set Standard.

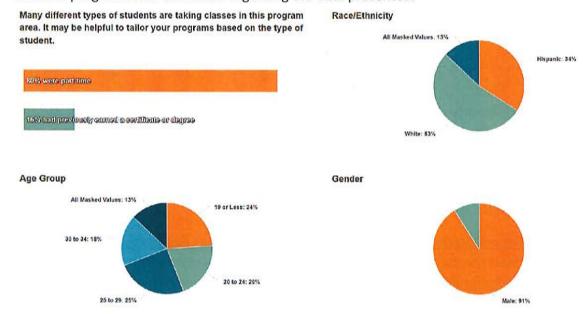


Course completion shows that CNET tracks the rest of the college as a whole but averages about 10% less. Most likely due to the complicated nature of CNET courses and the fact most CNET students are not transfer students who tend to be more serious about their studies than vocational students.

What resources might you need to meet and exceed the Institutional Set Standard?

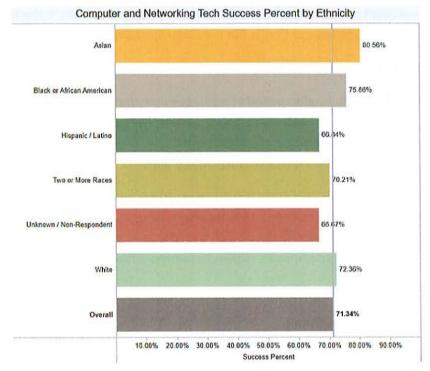
Some tutoring would help, but I think a problem with the tutoring center is they depend on prior students -- which unfortunately are hard to find ones competent in the wide range of specific knowledge needed in CNET courses. One possible solution would be to have a district funded position for various tutor specializations including CNET.

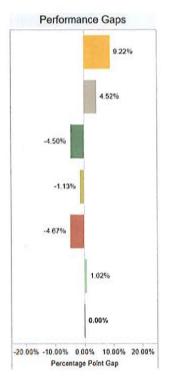
G. Review the <u>Disaggregated Student Success</u> charts; include any charts that you will reference. Describe any departmental or pedagogical outcomes that have occurred as a result of programmatic discussion regarding the data presented.

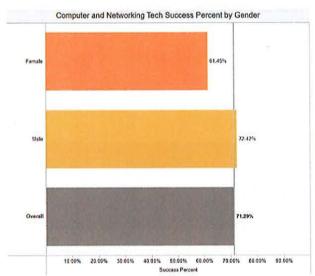


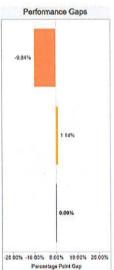


# Successful Course Completion by Student Subpopulation









The top graph shows a marked increase in Hispanic students and small pools of other races and about 10% or less female. These statistics play into the success rate graphs to give indications of their statistical validity. The small pools of women, Asian, and black make it difficult to access the success rate values. But from face value the Black population that participated was highly motivated, and the women population possibly was disenchanted with technology (or the lack of other women in technology) to explain the

numbers. Hispanics potentially had financial stresses causing slighty less success as there is no other explanation I can see in the data (below in the optional data it shows there is a large section of economically disadvantaged students in our propram and since the two largest groups are whites and Hispanics that is the only way I can interpret that data).

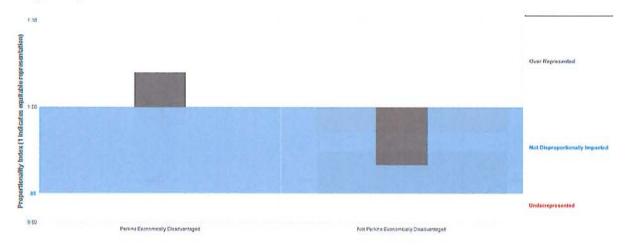
The following are some questions you might want to consider:

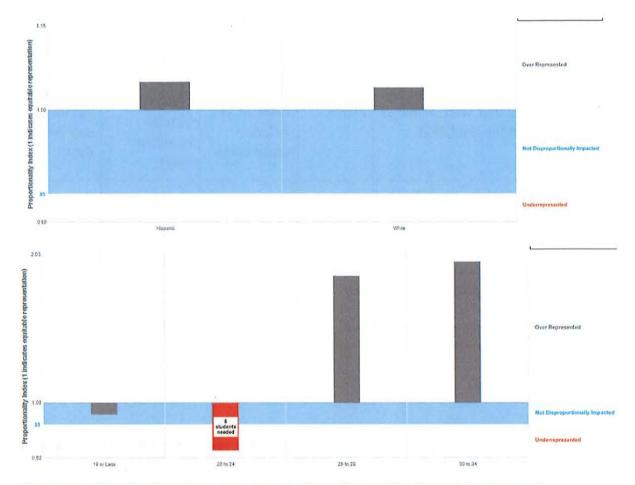
- What strategies have you implemented to address equity gaps in the classroom?
- What type of professional development opportunities are your program faculty participating in to address equity in the classroom?
- What resources might you need to minimize equity gaps?

Based on the above analysis for Hispanics providing more financial aid (if that is the issue), or for women recruiting other women to cohort with or possibly presenting materials with a more gender friendly approach such as more interactive for females (since some studies seem to show women are more drawn to human interaction).

## Other Relevant Program Data (optional)

Provide and comment on any other data that is relevant to your program such as state or national certification/licensure exam results, employment data, etc. If necessary, describe origin and/or data collection methods used.





The optional graphs show there is a segment of students under financial stress, and Hispanics and whiles are over represented in the program. But more likely that follows the county demographics in terms of race. Another interesting statistic is that very few students under 25 are in the program. This seems to show most are reentry students looking for another occupation or spent some time searching for work without an education and are more serious about it after growing up more. Also, it gives some weight to the notion that younger students don't have the same interest in computers as 10 years ago when many in the program where interested in building gaming computers.

#### V. PROGRAMS AND CURRICULUM REVIEW

# A. Programs Review

a. Review the CurricUNET "Program of Study" outline for each program and indicating yes/no for each program/certificate.

Program/Certificate Title (include all those programs and certificates that were active at the time of the last CPPR).	Currently active	New program since last CPPR (if yes, include active date)	Program modified since last CPPR (if yes, include modified date)	Deactivated since last CPPR (if yes, include deactivation date)
Computer and Networking Technology	yes		2021	
Computer Networking Support	yes		2019	
Computer Support Specialist	yes	ï	2015	
Network Infrastructure Support	yes		2019	

b. For all Currently Active Programs/Certificates, review the CurricUNET "Program of Study" outline for each active program/certificate and complete the table by indicating yes/no for each column.

Program/Certificate Title (include only those programs/certificates that are active).	Required courses and electives (including course numbers, titles, and credits) are accurate	Program description is current	Program Learning Outcomes are accurate and include method of assessment.	If any answers are "no" for a program, please enter a date (MM/DD/YYYY) in the next 5 years by which the program will be corrected.		
Computer and Networking Technology	yes	no	yes	The program description will be changed to reflect the new cnet240 course just submitted this		

				semester along with other changes
Computer Networking Support	yes	no	yes	Change this semester
Computer Support Specialist	yes	no	yes	Change this semester
Network Infrastructure Support	yes	yes	yes	A modification of this certificate will be done this semester

#### B. Curriculum Review

Complete the Curriculum Review Worksheet (<u>download from this folder</u>) and submit the form with your CPPR.

Based on information that you enter, the template will create a 5-year calendar for your program to follow during which any modifications to the Course Outline of Record determined during the curriculum review.

What is the purpose of the worksheet? Completing the worksheet provides evidence that the curriculum (including course delivery modalities) have been carefully reviewed during the past five years for currency in teaching practices, compliance with current policies, standards, regulations, and with advisory committee input. The form requires you to include evidence that you have reviewed that the entries on the course outline of record (CurricUNET format) are appropriate and complete.

## VI. PROGRAM OUTCOMES, ASSESSMENT AND IMPROVEMENTS

A. Attach or insert the assessment calendar for your program for the next program review cycle.

4	YEAR ASSES	SMENT CYC	CLE
Y1-F1	Y2-S1	Y3-F1	Y4-S1
CNET219	CNET221	CNET235	CNET240

CNET253	CNET254	CNET260	CNET261

B. Have you completed all course assessments in eLumen? If no, explain why you were unable to do so during this program review cycle and what plan(s) exist for completing this in the next program review cycle.

CNET219, CNET235, are completed. CNET221, CNET253, CNET254 are the responsibility of Don Repucci, CNET260 and 261 are the responsibility of Alan Ross (both have been notified)

Student	Annotation	Extreds	Mosts	Coss not meet	MA
Aberson Kyle	1000000	expectations	* storetamons	expectations	
Aleman, Carba					
Kita Kiel			-		
ANDORA Frank		×			
Badger Trave					ж.
Burna Patrick			×		
Crow Steven		×			
Drapton, James					
Good Mathew		×			
King Bet		X			
Mayle, Seth				×	
McCaste Whitney			×		
Meden, Brem		×			
Nervis for			. х		
Raminic Joseph		X			
Reda, Salan					×
Pypum, Jack				×	
San Gebreit, Jence		×			
Divis, Jesse					
Tensot, Bryce					*
Thuman Alaman		×			
Velasquez Jeffrey		×			
Winte, Matter					
Yarg Marce		*			
Yorg Marce Tetal		X II		,	1

C. Include the most recent "PLO Summary Map by Course" from eLumen which shows the Course-level SLOs mapped to the Program-level SLOs.

	AS_COMP_NET									
AS_COMP_NET SLOs	Apply fundamental principles of mathematics, physics and electronics to computer and networking theory and problem solving.	Develop broad based fundamental technical skill sets that will allow the technician to adapt to many jobs and changing requirements of industry.	Display traits of hard work, self- motivation, personal integrity, and positive attitude that will contribute to the success of the project and the company.	Utilize theory and basic skill sets for operating, maintaining, and troubleshooting relevant applications and specific technologies needed to support local industries.						
Investigate how operating system interacts with system components and devices	×	Х	x							
Configure the operating system for network applications and sharing of resources		A 2000 A 2000	X							
Implement computer management and monitoring for optimal performance			х	x						
Secure the operating system and attached devices to protect valuable data			Х							
Be able to follow standard troubleshooting methods and perform problem isolation	х		x	x						
CNET253	Magazin dan manana memba									
Discuss the major sections of the computer system	Х		x							
Apply computer hardware operational theory to solving problems	Х .		х							
Utilize diagnostic hardware and software to isolate problems			х	×						
Discuss the boot process in troubleshooting	· · · · · · · · · · · · · · · · · · ·	х	×	×						
Analyze common operating system functions in a computer system		x	х							
Utilize operating system tools such as device manager to solve problems			х	×						

D. Include the most recent "ILO Summary Map by Course" from eLumen that shows the Course-level SLOs mapped to the Institutional Learning Outcomes.

	Scientific and Environmental Understanding		Global Knowledge and gement	Technical and Informational Fluency		
ILOs SLOs	Make decisions regarding environmental issues based on scientific evidence and reasoning	Analyze, evaluate, and pursue their opportunities and obligations as citizens in a complex world	Demonstrate understanding of world traditions and the interrelationship between diverse groups and cultures	Recognize when information is needed, and be able to locate and utilize diverse sources effectively and ethically	Produce and share electronic documents, images, and projects using modern software and technology	
Configure the operating system for network applications and sharing of resources					×	
Implement computer management and monitoring for optimal performance					×	
Secure the operating system and attached devices to protect valuable data					×	
Be able to follow standard troubleshooting methods and perform problem isolation				×		
CNET253		Decree of the same				
Discuss the major sections of the computer system				×		
Apply computer hardware operational theory to solving problems					×	
Utilize diagnostic hardware and software to isolate problems				×		
Discuss the boot process in troubleshooting				×		
Analyze common operating system functions in a computer system				×		
Utilize operating system tools such as device manager to solve problems					×	
Perform basic administration tasks to meet industry certification requirements					х	
CNET255						

E. Highlight changes made at the course or program level that have resulted from SLO assessment. Please include the evidence of dialog that prompted these changes.

From SLO data, advisory data, and industry changes most of the courses have been converted to fully online or online lecture and face to face labs.

F. Identify and describe any budget or funding requests that are related to student learning outcome assessment results. If applicable, be sure to include requests in the Resource Plan Worksheet (download from this folder) and review the Resource Allocation Rubric.

The need for more online resources in DE education. This requires virtual infrastructure with cloud access. Online lab learning systems will greatly enhance these options and have yearly maintenance fees, but will reduce the amount of equipment costs needed to run the program

#### VII. PROGRAM DEVELOPMENT

Indicate how the program supports efforts to achieve any of the following:

- A. Institutional Goals and Objectives
- B. Institutional Learning Outcomes
- C. Program outcomes

The program has been streamlined to meet efficiency goals of the institution. The learning Outcomes remain the same and provide relevant training to create an industry ready workforce. The Program outcomes also remain the same to build students technically, ethically, and socially to meet the challenges of industry.

# Indicate any anticipated changes in the following areas:

# A. Curriculum and scheduling

The greatest challenge of the CNET program has been the transition of local datacenters and company hardward or software to cloud based solutions. This fundamentally changes the job description of the IT workforce and the skillsets required to maintain a cloudbased virtual infrasture as opposed to a physical on-site infrastructure.

Also user computers are being seen as a disposable assest that is replaced on a regular schedule rather than maintaining and upgrading hardware. Many companys are shifting end user workstations to laptops or notebooks, some with fully cloud based software such as chomebooks.

In response to this in the short term CNET240 was recently submitted (called Cloud Computing for Technicians) to upgrade skills. CNET 253 is still taught with standard computer technology (following the industry standard CompTIA A+ certification) but it is questionable how much longer this is going to be a valid starting point as a computer technician. CNET 221 workstation administration and CNET 254 server administration courses suffer the same problem since Microsoft suspended all of its server certifications and are no longer supported; therefore, currently the courses are being pieced together with 3<sup>rd</sup> party resources to still meet the legacy needs of many companies.

From advisory meeting data CNET 221 and CNET 254 probably can be taught with legacy technology for maybe 3 to 5 years before completely cloud based solutions are the most common technology then a transition in these courses will be necessary to support cloud based versions of training.

CNET 219 which deals with cabling and infrastructure at the foundation level will probably still be viable for years to come since fiber optics, copper and wireless all require this support. However, what should be done with this course (and the network infrastructure certificate) is to migrate it into the Electrician training program where usually that is the industry that installs cables along with electrical wiring.

Currently CNET 260 and 261 Networking Fundamentals are aligned with Cisco Network academy. This coursework as previously mentioned would benefit from not being taught twice a year. What the advisory committee proposed was replacing the

two courses with one that covers the CompTIA Net+. Most likely CNET 261 in its current mode will always be low enrolled so it makes since to reduce it down to one semester based course.

Probably the most promising direction of the CNET program besides adding more cloud based coursework is to increase the Cyber Security offerings including Ethical Hacker courses. It may be the solution is: replace CNET 221, 253, 254 with a reduced or combined course in on-site maintenance based training to free up units. Then add more cloud based or Cyber Security courses.

- B. Support services to promote success, persistence and retention
- C. Facilities needs
- D. Staffing needs/projections

Lastly, address any changes in strategy in response to the predicted budget and FTES target for the next program review cycle.

# VIII. END NOTES

If applicable, you may attach additional documents or information, such as awards, grants, letters, samples, lists of students working in the field, etc.

IX. After completing and submitting this document, please complete the <u>Overall Program Strength and Ongoing Viability Assessment</u> with your Dean before <u>Way 12, 2023</u>.

# SIGNATURE PAGE

Faculty, Director(s), Manager(s), and/or Staff Associated with the Program

Instructional Programs: All full-time faculty in the program must sign this form. If needed, provide an extra signature line for each additional full-time faculty member in the program. If there is no full-time faculty associated with the program, then the part-time faculty in the program should sign. If applicable, please indicate lead faculty member for program after printing his/her name.

Instructional Programs: All full-time director(s), managers, faculty and/or classified staff in the program must sign this form. (More signature lines may be added as needed.)

John Stokes		
Division Chair/Director Name	Signature	Date
Oscar Ramos		
Name	Signature	Date
Chris Akelian (Mar 7, 2023 18:31 PST)		
Name	Signature	Date
Name	Signature	Date
10 10 10 10 10 10 10 10 10 10 10 10 10 1	J.B.I.aca. C	Date

# SUPPLEMENTAL DOCUMENTS

# FACULTY HIRING PRIORITIZATION INFORMATION (IF APPLICABLE)

If your program requested a faculty position for consideration, please attach or embed the following worksheets that were presented to the College Council. The guidelines for faculty prioritization can be found here: <u>Faculty Prioritization Process Handbook</u>

APPLICABLE SIGNATURES:	
Vice President/Dean	Date
Division Chair/Director/Designee	Date
Other (when applicable)	Date
The above-signed individuals have read and discussed this re the program involved in the preparation of the CPPR acknow Dean's narrative analysis. The signatures do not necessarily	viedge the receipt of a copy of the Vice President/

# CAREER TECHNICAL EDUCATION (CTE) TWO-YEAR PROGRAM REVIEW FOR 2023

Program: CNET Planning Year: 2023 Unit: Eng&Tech

Cluster: Workforce Development Last Year of CPPR/Voc. Ed

Review: 2019

**INSTRUCTIONS:** CTE programs will complete and submit the below Two-Year Program Review as part of a regular two-year program review cycle (Ed Code 78016). In addition, CTE programs will complete and submit an APPW on an annual basis and an Instructional Comprehensive Program Planning and Review (CPPR) every four years according to the institutional comprehensive planning cycle for instructional programs.

# California Ed Code 78016

Every vocational or occupational training program offered by a community college district shall be reviewed every two years by the governing board of the district to ensure that each program, as demonstrated by the California Occupational Information System, including the State-Local Cooperative Labor Market Information Program established in Section 10533 of the Unemployment Insurance Code, or if this program is not available in the labor market area, other available sources of labor market information, does all of the following:

- 1. Meets a documented labor market demand.
- 2. Does not represent unnecessary duplication of other manpower training programs in the area.
- 3. Is of demonstrated effectiveness as measured by the employment and completion success of its students.
- A. Any program that does not meet the requirements of subdivision (A) and the standards promulgated by the governing board shall be terminated within one year.
- B. The review process required by this section shall include the review and comments by the local Private Industry Council established pursuant to Division 8 (commencing with Section 15000) of the Unemployment Insurance Code, which review and comments shall occur prior to any decision by the appropriate governing body.
- C. This section shall apply to each program commenced subsequent to July 28, 1983.
- D. A written summary of the findings of each review shall be made available to the public.

<sup>1</sup> San Luis Obispo County Community College District Career Technical Education (CTE) Two-Year Program Review Approved Document to be Used for Submission Spring, March 6, 2023

**NARRATIVE:** Review your CTE program according to the following three prompts with analysis of data provided by the State: <a href="http://www.labormarketinfo.edd.ca.gov/">http://www.labormarketinfo.edd.ca.gov/</a>.

If assistance is needed to retrieve data, please contact the Dean of Instruction for Health, Workforce and Kinesiology.

Provide a written summary for each prompt. If yes, explain why and/or how. If no, explain why.

I. Meets a documented labor market demand, http://www.labormarketinfo.edd.ca.gov/.

Local job market shows over 500 possible computer related positions (of-course there is no way to know how many of these positions are already filled but assuming at a given time 10% are not filled then that would mean about 50 positions need to be filled so the CNET program can help meet that need)

	San Luis Obispo-Paso I	Robles-Arroy	o Grande MSA				•				
MSA Co⊡	Gaarankis Arra	SOC Co(	Occupational Title	·¥	May 2021 Employmen - Estimates	Mean Hour		Mean Relative Standard En	25th Percentil( Hourly Wage	50th Percentile (Median) Hourly Wage	75th Percentil( ~ Hourly Wage
042020	San Luis Obispo-Paso F	15-1231	Computer Network Support Specialists	-	60	\$34 20	\$71,131	3.4	\$28.02	\$31.20	\$39.75
042020	San Luis Obispo-Paso F	15-1232	Computer User Support Specialists		300	\$30.82	\$64,107	2.9	\$21.90	\$28.94	\$38.75
042020	San Luis Obispo-Paso I	15-1299	Computer Occupations, All Other		200	\$44.64	\$92,846	8.6	\$29.17	\$39.51	\$55.13

Statewide it shows Computer support specialists have a growth rate of 6%, Computer network support 10.1% and Network administrators 5.8%. So overall at least average growth or above.

**Computer Support Specialists** 

Quick Facts: Computer Support Specialists				
2021 Median Pay 🕜	\$57,910 per year \$27.84 per hour			
Typical Entry-Level Education 🕡	See How to Become One			
Work Experience in a Related Occupation 🕜	None			
On-the-job Training 🕜	Moderate-term on-the-job training			
Number of Jobs, 2021 🕡	875,700			
Job Outlook, 2021-31 🕜	6% (As fast as average)			
Employment Change, 2021-31 🕜	56,400			

## Computer Network Support Specialists

Computer Network Support Specialists (SOC Code: 15-1152) in California Analyze, test, troubleshoot, and evaluate existing network systems, such as local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Network and Computer Systems Administrators" (15-1142) and "Computer Network Architects" (15-1143) Employers are usually looking for candidates with a Associate degree . Occupational Wages [Top] Wages for this occupation in California are not available. View Wages for All Areas About Wages Occupational Projections of Employment (also called "Outlook" or "Demand") Employment **Employment Change** Estimated Year-Projected Year Area **Total Job Openings** Estimated Projected Percent California 2018 - 2028 12,900 14,200 1,300 12,400

#### **Network Administrators**

California

Network and Computer Systems Administrators (SOC Code: 15-1142) in California Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures. Exclude "Computer Support Specialists" (15-1041). Employers are usually looking for candidates with a Bachelor's degree . Occupational Wages [Top] Wages for this occupation in California are not available. View Wages for All Areas About Wages Occupational Projections of Employment (also called "Outlook" or "Demand") **Employment Change** Estimated Year-Projected Year **Total Job Openings** Estimated Projected Percent

The above tables show a consistent amount of demand. What isn't shown is how the role of each job description will change and how CNET must adapt to it to remain viable thus address future demand. One thing that is clear is computers and networking are more critical than ever to company viability in today's economy.

25,700

1,500

19,990

II. Does not represent unnecessary duplication of other manpower training programs in the area.

The closest CNET community college training is Alan Hancock college. Locally there is Laurus college that has options for two- and four-year IT degrees (of-course at much greater expense), then there are other online options for students to take IT coursework with DE programs common at most community colleges.

III. Is of demonstrated effectiveness as measured by the employment and completion success of its students.

2018 - 2028

<sup>3</sup> San Luis Obispo County Community College District Career Technical Education (CTE) Two-Year Program Review Approved Document to be Used for Submission Spring, March 6, 2023

# https://misweb.cccco.edu/perkins/Core Indicator Reports/Summ CoreIndi TOPCode.aspx

Below shows Cuesta CNET program is above the goal for skill attainment (core1) and certificate or degree completion (core2). For persistence (core3) and employment (core4) the CNET program is very close to the target value specified; however, Non-traditional (Core5) employment and completion are far below the target values.

Various methods have been tried to improve female participation including targeted advertising methods, but CNET consistently attracts male to female at a ratio of about 10 to 1 or greater based on class enrollments. Anecdotally the Cyber security course CNET235 over the last few years has had about twice as many females as regular CNET courses so it seems that aspect of CNET is most appealing to women.

What is also interesting about the below statistics is Hispanic enrollment was shown to have increased in CNET according to the chancellor office data and the schools program data; however, that does not reflect any Core5 improvement (unless Hispanics are not considered non-traditional for CNET employment, however, at one time CNET had very few Hispanic students so this is a recent change)

Select Report Type	Select District/College		Select Fiscal Year			Select TOP Code				
College Summary - Core	Cuesta College	*	2020-20	)21	•		130 110 <b>2</b> 0 1	Vie		ew Report
		Core 1 Skill Attainment		Core 2 Completion	Core 3 Persistence		Core 4 Employment	Core 5a NT Participation		Core 5b NT Completion
E 0708 COMPUTER INFRASTRUCTURE AND SUPPORT		100.00		93.75	89.66		72.73	3.45		6.25
Performance Rate Less Than Goal is Shaded  Core 1 - Skill Attainment, GPA 2.0 & Above: 91.75% Pe			Total Count is 10 or Greater				Total Count is Less Than 10			
Core 2 - Completions, Certif Core 3 - Persistance in High Core 4 - Employment: 73.23 Core 5 - Training Leading to	ficates, Degrees and Trans ner Education: 91.00% Peri 3% Performance Goal - (20	fer Re formar 017-2	ady: <mark>89.00%</mark> nce Goal - ( 018)	6 Performance G 2017- 2018)			A.	7- 2018	)	
Source: CCCCO MIS Datal UC Office of the President,						Page 1	of 1 R	eport C	reate Dat	e: 02/01/2010

<sup>4</sup> San Luis Obispo County Community College District Career Technical Education (CTE) Two-Year Program Review Approved Document to be Used for Submission Spring, March 6, 2023