Program Review & Planning (PRP)

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PART 1: BASIC PROGRAM INFORMATION

Program Review is a self-study of your discipline. It is about documenting the plans you have for improving student success in your program and sharing that information with the college community. Through the review of and reflection on key program elements, program review and planning identifies program strengths as well as strategies necessary to improve the academic discipline, program, or service to support student success. With that in mind, please answer the following questions:

Discipline Name:	Computer Science (CSCI)
Department Name:	Computer Science & Information Technology
Division Name:	Mathematics and the Natural and Health Sciences & Computer Science

Please list all participants in this Program Review:

Name	Position
Richard Stegman	Professor, Computer Science
Anthony Smith	Professor, Computer Science

Number of Full Time faculty	2	**Number of Part Time Faculty**	11

Please list the Classified positions (and their FTE) that support this discipline:

Department ADA 30%
Systems Analyst 30%

What additional hourly staff support this discipline and/or department:

Computer Lab Tutors
Computer Lab Assistants

Discipline mission statement (click here for information on how to create a mission statement):

The mission of the Computer Science program at Palomar College is to present our students with up-to-date computer science curricula and pedagogy, ensure they have a solid foundation in the core computer science concepts, equip them with problem solving and decision-making skills, and provide a strong foundation for transfer into a four-year program, as well as lifelong learning in the field of computer science.

List all degrees and certificates (e.g., AA, AT, Certificates) offered within this discipline:
AS Computer Science AS Computer Science with Emphasis in Video Gaming

PART 2: Program Assessment

The first step in completing your self-study is to examine and assess your discipline/program. To accomplish this step, complete the Following Sections:

Section 1: Program Data and Enrollment
Section 2: Course Success Rates
Section 3: Institution and Program Set Course Success Rate Standards
Section 4: Completions
Section 5: Labor Market Information (CTE programs only)
Section 6: Additional Qualitative Information
Section 7: Curriculum, Scheduling, and Student Learning Outcomes

SECTION 1: PROGRAM DATA & ENROLLMENT

Click on the following link to examine enrollment, efficiency, and instructional FTEF trends for your discipline. Log-in using your network username and password.
https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Productivity%20Metric%20Summary.aspx

A. To access your discipline data, select your discipline from the drop down menu.
B. To access course level data (e.g., COMM 100 or BIOL 100) use the drop down menus to select "discipline" and "catalog number".

Use the data to answer the following questions.

1. Discipline Enrollment

Discipline Enrollment (over last 5 years)	Increased		Steady/No Change		Decreased	X
Reflect on your enrollment trends over the past five years. Was the trend expected? What factors have influenced enrollment?						
CSCI enrollment at census has decreased very slightly this year, from 1,277 in 2015/16 to 1,265 in 2016/17. This has been another challenging year for enrollment, college wide. In previous years, CSCI enrollment has greatly increased.						

2. Course-Level Enrollment and Fill Rates

If there are particular courses that are not getting sufficient enrollment, are regularly cancelled due to low enrollment, or are not scheduled, discuss how your discipline is addressing this. For example, are there courses that should be deactivated?
The data shows that course-level enrollments for the CSCI discipline exactly follow the expected pattern of high enrollments in the beginning courses (628 in the introductory CSCI 112 course), then tapering down through the sequence (118 in the 3rd level CSCI 210 course). Fill rates overall are very good, with 93% and 92% respectively for these 2 core courses, and an overall rate of 86% for all the active, reported CSCI courses. Actual overall fill-rates are: 2011-12 94.19 2012-13 94.57 2013-14 92.79

2014-15 81.34
2015-16 84.91
2016-17 85.82

CSCI fill rates are down from 2011-2013 but have been rising from 2014-2016. I was also informed that our fill rates were very high this spring, 2018 semester. We have streamlined out course offerings to increase fill rates. However, we must be careful to ensure students can get the courses they need in an appropriate time frame.

There are no courses in the program that should be deactivated.

3. WSCH/FTEF

Although the college efficiency goal is 525 WSCH/FTEF or 35 FTES/FTEF, there are many factors that affect efficiency (i.e. seat count / facilities / accreditation restrictions).							
Discipline Efficiency Trend	**Increased**	X	**Steady/No Change**		**Decreased**	
Discipline Efficiency:	**Above 525 (35 FTES/FTEF)**		**At 525 (35 FTES/FTEF)**		**Below 525 (35 FTES/FTEF)**	X

Reflect on your enrollment trends over the past five years. Was the trend expected? What factors have influenced enrollment?

Our current WSCH/FTEF of 453 continues a recent trend of significant increases, and is now back around our traditional level observed over the past 5 years of data. This level is as expected, given the instructor-intensive nature of our curriculum.

Actual WSCH/FTEF are:

2011-12   463.17
2012-13   461.61
2013-14   454.25
2014-15   400.51
2015-16   417.13
2016-17   453.06

4. Instructional FTEF:

Reflect on FTEF (Full-time, Part-time, and Overload) over the past 5 years. Discuss any noted challenges related to instructional staff resources.

5 years of data show that every year most of our courses are taught by part-time instructors. (From a low of 62% of courses taught by part-time in 2012/13, to the high of 87% in 2015/16.) This is to be expected, given that after a retirement in 2014, we have only 2 full-time instructors for our courses. High priority must be given to hiring another full-time CSCI instructor.

SECTION 2: COURSE SUCCESS RATES

Click on the following link to review the course success rates (% A, B, C, or Credit) for your discipline. Examine the following course success rates.

   A. **On-Campus Course Success Rates**
   B. **Online Course Success Rates**
   C. **Course Success Rates by gender, age, ethnicity, and special population (use the filter buttons at the top of the worksheet to disaggregate success rates by demographic variables)**
   D. **Course Success Rates by class location (Escondido, CPPEN, etc.)**

https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Success%20and%20Retention.aspx

1. Overall Success Rate:

> **Reflect on your discipline's on-campus, online, and by location (ESC, CPPN, etc.) course success rates over the past five years. Compare your success rates to the overall college success rates. Are the rates where you would expect them to be? Have there been changes over time?**

CSCI overall success rate remains exactly the same as last year, at 55.5% for 2016/17. (Success rate for the college overall was 70.9%.) A more usual success rate for the program historically is around 65%, so improvement is to be expected.

Success rates remain approximately the same as last year across Class Types. The most significant finding is that Distance Education classes continue to have the lowest Success Rate (of 49%) versus 57% for Day and 62% for Evening classes. (CSCI classes are offered only at San Marcos or online.)

Actual success rates are:

2011-12 70%
2012-13 65%
2013-14 68%
2014-15 58%
2015-16 55%
2016-17 55%

Success rate in CSCI has decreased from 70% to 55% over the past 6 years. However, the data does not allow a breakdown in success rate for individual CSCI classes. I would anticipate a greater success rate for more advanced computer science classes than for the introductory classes. While CSCI is a technically challenging field, we anticipate the success rate in our introductory level classes to increase with assistance from administration for placing tutors in the classroom.

2. Course Success Rates by gender, age, ethnicity, and special population:

> **Reflect on your discipline's success rates by the given demographic variables (gender, age, ethnicity, special population). Are there large differences between groups? If so, why do you think this is happening and what might you consider in the future to address the needs of these groups?**
> **Note: Institutionally, the College has a goal to close the performance gap of disproportionately impacted students, including African-American, Hispanic/Latino, veterans, foster youth, and students with disabilities. You can access the Student Equity Plan on the SSEC website https://www2.palomar.edu/pages/ssec/**

Gender	Gender significantly influences enrollment numbers in CSCI classes, with only around 10% of enrollment being Female. However, gender does not have a large effect on Success Rate, currently 52% for Female and 56% for Male
Age	Age does not strongly affect Success Rate. Most of our students are 20 To 24, with 53% Success Rate. Students 19 And Under have the lowest Success Rate at 52%, while Students 25 To 49 are at 57%
Ethnicity	There is a striking difference in Success Rates between the 2 most well-represented Ethnic groups. The current Success Rate for Hispanic is 43%, compared with 61% for White.
Special Population (examples- veteran, foster youth, etc)	Of Special Populations, only veterans take CSCI courses in significant numbers, with approximately comparable Success Rate. (Currently about 10% of our enrollment, with 53% vs 56% Success Rate.)

3. Disaggregated Course Success Rates (Select at least two other variables):

> **Disciplines/programs find it useful to examine course success rates by other types of variables (e.g., time of day, level of course (basic skills, AA, Transfer). Examine course success rates disaggregated by at least two other variables and reflect on your findings.**

About the same number of CSCI students are Full-Time vs Part-Time (310 to 319). As expected, the Full-Time Success Rate is

slightly better, at 58% against 53%

SECTION 3: INSTITUTION AND PROGRAM SET COURSE SUCCESS RATE STANDARDS

ACCJC requires that colleges establish institutional and program level standards in the area of course success rates. These standards represent the lowest success rate (% A, B, C, or Credit) deemed acceptable by the College. In other words, if you were to notice a drop below the rate, you would seek further information to examine why the drop occurred and strategies to address the rate.
 	
Discipline Level Course Success Rate:
    A. **The College's institutional standard for course success rate is 70%.**
    B. **Review your discipline's course success rates over the past five years.**
    C. **Identify the minimum acceptable course success rate for your discipline. When setting this rate, consider the level of curriculum (e.g., basic skills, AA, Transfer) and other factors that influence success rates within your area. If you set your discipline standard below the College's standard, please explain why.**

Standard for Discipline Course Success Rate:	**70%**
Why?	

Historic CSCI Total Success Rate data shows that in the past we were just about able to achieve the College's institutional standard for course success of 70%, so this remains the standard for CSCI. However there has been a significant drop in total success rate over the past 3 years, to 58.5% in 2014/15, 55.5% in 2015/16 and 55.5% in 2016/17. This drop was expected, due to changes in the CSCI core curriculum around this time. We expect improvement in course success in the future, as instructors become more familiar with the changes.

SECTION 4: COMPLETIONS

Click on the following link to review the completions for your discipline.
https://sharepoint2.palomar.edu/sites/IRPA/SitePages/Degrees%20and%20Certifications.aspx
 	
    A. **To access your discipline data, go to the "Awards" tab at the bottom of the page and click on your discipline.**
    B. **To access your program level completions, click on the tab titled "Awards by Academic Plan" at the bottom of the page and then click on your discipline.**

1. Overall Completions:

Reflect on your discipline's overall completions over the past five years. Are the completions where you would expect or want them to be? What is influencing the number of completions?
The number of AA/AS degrees awarded in the Computer Science discipline is low, although the number of degrees awarded have increased over the past 5 years. This is not surprising as the goal of our computer science students is to take the required lower-level computer science courses at Palomar and transfer to a 4-year college or university to continue their work towards a BS degree in Computer Science. Not only have our students been successful in transferring to the very best of 4-year colleges and universities, but they find that their Computer Science coursework at Palomar has well prepared them for the the rigors of a 4-year Computer Science program.

2. Specific Degree/Certificate Completions:

Do you have degrees or certificates with few or no completions? If so, what factors influence completions within specific programs? If you have degrees/certificates with few completions, are they still viable? What can be done to help students complete programs within your discipline?

AA/AS completed:

2008-09	1
2009-10	1
2011-12	5
2012-13	6
2013-14	10
2014-15	9
2015-16	16

See above.

SECTION 5: LABOR MARKET INFORMATION (CTE PROGRAMS ONLY)

If you have CTE programs in your discipline, refer to the following link to obtain relevant labor market data.
This data can be found on the Centers for Excellence website at **http://www.coeccc.net/Supply-and-Demand.aspx**

Example of Labor Market Information:

SOC	Description	Counties	2014 Occupations	2017 Occupations	Change	% Change	Openings	Annual Openings	10% Hourly Earnings	Med Hourly Earnings	Entry Level Education (Typical)
13-2011	Accountants and Auditors	Imperial	341	361	20	5.8%	57	19	$17.70	$26.09	Bachelor's degree
13-2011	Accountants and Auditors	San Diego	12,554	13,735	1,181	9.4%	2,388	796	$20.88	$32.92	Bachelor's degree

1. What is the regional three-year projected occupational growth for your program(s)?

Computer Programmers: 2.7%
Software Developers, Applications: 11.8%
Software Developers, Systems Software: 7.2%
Database Administers: 8.7%
Network and Computer Systems Administrators: 7.1%
Computer Network Architects: 8.1%
Computer Hardware Engineers: 3.5%

2. What is being done at the program-level to assist students with job placement and workforce preparedness?

Our Computer Science program is current and provides a strong foundation for students entering the workforce. We place students into internships, when available. However, the field of computer science is very competitive and we encourage our students to enter a college or university to obtain a 4-year Computer Science degree.

3. If your program has other program-level outcomes assessments (beyond SLOs and labor market data), including any external mandated regulatory items, discuss how that information has been used to make program changes and/or improvements.

NA

4. When was your program's last advisory meeting held? What significant information was learned from that meeting? (CTE programs are required by Title 5 to conduct a minimum of 1 advisory meeting each year)

There is an SD4C advisory committee meeting held twice/year that give approximately 40 faculty and industry representatives the opportunity to discuss curriculum as well as trends in the workforce. Last meeting was held November, 2017.

SECTION 6: ADDITIONAL QUALITATIVE INFORMATION

Not all information important to reviewing your program is quantitative or included in the section above.

Describe other data and/or information that you have considered as part of the assessment of your program. (Examples of other data and factors include, but are not limited to: external accreditation requirements, State and Federal legislation, four-year institution directions, technology, equipment, budget, professional development opportunities).

We have recently transferred into a more appropriate Division for our program, and are now focusing on working with other STEM departments in the new division, to align our program with a Computer Science STEM pathway.

It is a fact that our curriculum is literally defined by the equipment and laboratory environment in which it is offered. To best serve our students and meet their preparation needs at the highest level of competence, we must provide a learning environment that effectively mirrors the current technology of the real world. In order to be able to develop and support a viable, relevant and innovative curriculum that attracts and retains students, the Computer Science discipline must have the necessary, on-going financial support to maintain state-of-the-art laboratories. Without this support, the department's ability to accomplish its goals is significantly diminished. Specific equipment and funding requests can be found in Part 3, Section 2: New Discipline Goals.

SECTION 7: CURRICULUM, SCHEDULING, AND STUDENT LEARNING OUTCOMES

1. SLO Assessment Results:

How have SLO assessment results impacted your planning over the last three years? Consider curriculum, teaching methodology, scheduling, department discussion (FT & PT faculty included) resources, etc. Refer to the SLO/PRP report – https://outcomes.palomar.edu:8443/tracdat/

All the CSCI discipline courses have now been assessed at least once. While we have so far met our SLO assessment goals 100% of the time, we realize that it is important to monitor these assessments and to watch for trends or changes.

We have set up a class schedule that offers all of our core classes in day, night and distance education formats. We have included all FT and PT in regular discussions throughout the semesters and seek input and feedback on all our classes.

There are also 4 CSCI program level SLOs. We have planned to evaluate one of these program SLOs per year, beginning 2017. This year we will be assessing the "Computer programs" program learning outcome: "that students will be able to design and write computer programs that are correct, efficient, and well documented".

2. SLO Assessment Methods:

How effective are your current methods/procedures for assessing course and program student learning outcomes? What is working well and how do you know? What needs improvement and why? Refer to the SLO/PRP report – https://outcomes.palomar.edu:8443/tracdat/

Exams, homework assignments, and/or computer programming assignments are used to assess the success of course SLOs. We believe that our current methods for assessing course and program SLOs are effective and working well. We are currently working on updating our assessments by updating TRACDAT and inputting results. As noted in other parts of this report, our students who transfer to 4-year Computer Science degree programs from Palomar College are routinely praised by their new schools (per CSUSM CS faculty and several other 4-year schools across the state). While this cannot be documented quantitatively, it is information given to us through Advisory meetings and other professional relationships.

3. Program SLOs:

> **How do your program SLOs represent the scope and depth of learning appropriate to the degree/certificate programs offered? What needs improvement and why? Refer to the SLO/PRP report – https://outcomes.palomar.edu:8443/tracdat/**

We currently have 4 program level SLOs to represent the scope and depth of learning appropriate to the degree program offered. In order to simplify SLO assessment, we have been considering replacing these with just one single, overall program SLO, that states that 70% of students taking the final exam of the CS capstone CSCI 210 Data structures class will pass with a 70% score or higher. While not formally assessed, the feedback each semester from all instructors is that all sections should achieve this SLO. We will re-evaluate this simplification from 4 down to 1 program SLO on an ongoing basis.

4. Curriculum overview:

> **Does your program offer sufficient opportunities for students to learn current disciplinary and professional knowledge, skills, competencies, etc. for the type and level of degree/certificate offered? Discuss how your course/program reviews, since the last PRP, have changed and/or impacted your program. How is the potential need for program/course deactivation addressed by the department?**

We believe that our curriculum offers sufficient opportunities for students to learn current professional knowledge. We have found that our course and program PRP reviews have confirmed that the course and program are working well.

Program and course deactivations are addressed appropriately by the department. Discipline specialists make the judgment regarding any necessary deactivations and notify department members. Discussions result, finalized by a vote on the deactivation.

5. Curriculum scheduling:

> **Describe how you schedule your courses to include a discussion on scaffolding (how all parts build on each other in a progressive, intentional way), and scheduling of courses so students can follow the best sequence. Address how enrollment issues impact scheduling and student completion/achievement.**

The CSCI curriculum shows a clear, progressive pathway through the required and elective courses. Load factor data shows that scheduling of the entire curriculum is done efficiently and well. Courses are offered appropriately, with high load factors; there are few student requests for courses that are not offered frequently enough.

6. Curriculum communication:

> **How does regular communication with other departments that require your courses in their programs occur – scheduling, review scheduling conflicts/overlaps for courses within same program, etc.?**

There have been few or no scheduling conflicts or overlaps within the CSCI program or with other departments. Any regular communication with other departments has taken place as necessary, with satisfactory outcomes.

PART 3: Program Evaluation and Planning

Program Evaluation and Planning is completed in two steps.

Section 1: Overall Evaluation of Program
Using the results of your completed assessment (See Sections 1-6 above), identify the strengths and areas for improvement within your program. Also consider the areas of opportunities and any external challenges your program faces over the next three years. Summarize the results of your assessment in the Grid below.

Section 2: Establish Goals and Strategies for the Next Three Years
Once you have completed your overall evaluation, identify a set of goals and strategies for accomplishing your goals for this upcoming three year planning cycle. Use the template in Section 2 below to document your goals, strategies, and timelines for completion.

SECTION 1: OVERALL EVALUATION OF PROGRAM

1. Discuss your discipline's strengths, weaknesses, opportunities and threats in regards to curriculum, assessment, enrollment, success rates, program completion, etc. For helpful suggestions on how to complete this section, go to http://www2.palomar.edu/pages/irp/files/2017/02/Helpful-Tips-for-Completing-a-SWOT.pdf

Strengths:	The Computer Science discipline provides a strong foundation for students to transfer to a 4-year college or university to complete a BS in Computer science. Our two full-time faculty have each been teaching at Palomar for more than 20 years and our adjunct instructors bring their industry expertise into the classroom.
Weaknesses:	We desperately need two additional full-time Computer Science faculty members. Our department has not hired Computer Science faculty in a generation as the hiring focus in the department has been on IT, Web, and Networking.
Opportunities:	The Computer Science program finally finds itself in an appropriate division where our Dean understands the technological challenges and needs of our faculty and students. We are now focused on working with other STEM departments in the division and aligning our program with a Computer Science STEM pathway.
Threats:	CSUSM will be opening a Software Engineering degree program in the upcoming years. While the program could have an negative impact on our enrollment, the likelihood is that our program will be a strong feeder into their new program. Bring it on!

SECTION 2: Establish Goals and Strategies for the Next Three Years

1. Progress on Previous Year's Goals: Please list discipline goals from the previous year's reviews and provide an update by placing an "X" the appropriate status box .

Goal	Completed	Ongoing	No longer a goal
● To offer a curriculum that appropriately attracts students and contributes to the overall excellence of Palomar College's educational programs. ● To assist students in mastering a core of knowledge and skills to match their educational objectives. ● To provide and implement a curriculum that is relevant and compatible with current technology and which supports the goals and meets the needs of students interested in preparation for involvement in the field of Computer Science.		X X X	
● Purchase new computer workstations in MD-231.		X	
● Hire permanent, full-time faculty. ● Hire permanent Instructional Support Assistant/ISA3 Lab Assistant position.		X X	

2. New Discipline Goals: Please list all discipline goals for this three-year planning cycle (including those continued from previous planning cycle):	
Goal #1	
Program or discipline goal	To share in the Palomar College funding resources in an appropriate and equitable manner that provides the Computer Science program with the financial capability to continually upgrade and maintain its equipment and laboratory environments in a status which effectively meets the need to provide compatibility with the constant and rapid change that is occurring in the world of computer technology.
Strategies for implementation	Submit Resource Request.
Timeline for implementation	2018
Outcome(s) expected (qualitative/quantitative)	Our 2014-2015 PRP, 2015-2016 PRP, and 2016-2017 PRP requested replacements of computers in MD-231 and funds were never allocated. The computers in MD-231 are more than six years old and are out of warranty. There must be laboratory environments for implementing the Computer Science curriculum that represent state-of-the-art technology. While other departments utilize computers to supplement their curriculum, computers are the essence of the Computer Science curriculum. It is a fact that our curriculum is literally defined by the laboratory environment in which it is offered. To best serve our students and meet their preparation needs at the highest level of competence, we must provide a learning environment that effectively mirrors the current technology of the real world. In order to be able to develop and support a viable, relevant and innovative curriculum that attracts and retains students, the Computer Science discipline must have the necessary, on-going financial support to maintain state-of-the-art laboratories. Without this support, the department's ability to accomplish its goals is significantly diminished.
Goal #2	
Program or discipline goal	**Hire two permanent full-time Computer Science faculty members.**
Strategies for implementation	Classes in Computer Science continue to be very popular. While the Computer Science program shows great success, often many students are turned away. We simply cannot find enough qualified adjuncts to teach our classes as the technical requirements for Computer Science adjuncts are quite high. It's been 20 years since we have been able to hire new CSCI faculty and we're hopeful that the Computer Science discipline will get to the top of the hiring list, especially since one of our full-time faculty recently retired.
Timeline for implementation	2018
Outcome(s) expected (qualitative/quantitative)	Strengthen current program and focus on STEM pathways.
Goal #3	
Program or discipline goal	**Hire permanent, full-time Instructional Support Assistant/ISA3 lab assistant position.** A new Instructional Support Assistant position has long been

	required to work in the CSIT Department computer labs. Essential duties include support of computing resources in the labs; support of student learning in the labs.
Strategies for implementation	Requesting position.
Timeline for implementation	2018
Outcome(s) expected (qualitative/quantitative)	Assist CSIT Systems Analyst in setups and configurations of CSIT computer labs.

Goal #4	
Program or discipline goal	**Hire STEM Computer Science Tutors.** Place tutors in our two introductory level courses, CSCI 112 and CSCI 114.
Strategies for implementation	Faculty are recommending their best students to work with faculty and students in the introductory level classes.
Timeline for implementation	2018
Outcome(s) expected (qualitative/quantitative)	Computer Science is notoriously difficult, particularly at the beginning stages, so having qualified tutors in the introductory level classes will significantly improve student success.

Goal #5	
Program or discipline goal	**Develop Computer Science Stem pathway.**
Strategies for implementation	Collaborate with Dean and other departments in division.
Timeline for implementation	2018
Outcome(s) expected (qualitative/quantitative)	Improve student success and retention.

3. How do your goals align with your discipline's mission statement?
Our goals fulfill each of the components of the Computer Science mission statement.

4. How do your goals align with the College's Strategic Plan Goals?
The Computer Science program will empower students to succeed in their chosen field and will cultivate an appreciation of learning.

PART 4: FEEDBACK AND FOLLOW-UP
This section is for providing feedback.

Confirmation of Completion by Department Chair	
Department Chair	Terrie Canon
Date	2/28/18

*Please email your Dean to inform them that the PRP has been completed and is ready for their review

Reviewed by Dean	
Reviewer(s)	Margie Fritch
Date	March 13, 2018

1. Strengths and successes of the discipline as evidenced by the data and analysis:

LMI data is well presented.

2. Areas of Concern, if any:

3. Recommendations for improvement:

Data sections need more analysis and discussion

*Please email your VP to inform them that the PRP has been completed and is ready for their review

Reviewed by: Instructional Planning Council PRP Sub-Committee	
Reviewer(s)	Sarah De Simone
Date	4/4/2018

1. Strengths and successes of the discipline as evidenced by the data and analysis:

LMI, enrollment and demographics are thoroughly discussed and is supported with data.

2. Areas of Concern, if any:

Decrease in enrollment and success rates especially in the online delivery. It is my understanding that 2 SLOs are required per course, and 2 PLOs are required.

3. Recommendations for improvement:

4. Recommended Next Steps:

X	**Proceed as Planned on Program Review Schedule**
	Repeat Comprehensive Review

Reviewed by: Vice President	
Reviewer(s)	Jack S.Kahn, Ph.D.

Date	1/19/2018

1. Strengths and successes of the discipline as evidenced by the data and analysis:

1. Enrollment section includes data- thank you
2. Demographic differences are also sufficiently discussed
3. LMI data is interesting and well presented
4. You have fascinating courses that should be seeing more students proportionately – I think there is a discussion here as well- lets see what we can do to assist
5. Perhaps the pathway goal can help address completion rates- great idea and goals certainly make sense
6. Good start here but missing some key data and conversation

2. Areas of Concern, if any:

a. List overall fill-rates and plan to address lower rates
b. List comparison to other wsch/ftef (actually list the other ones)
c. Success rates need significant discussion – this is obviously a challenging area but other challenging areas are not nearly this rate—this needs to be a faculty discussion with ideas for implementation-
d. List the actual number of degrees completed and compare to previous years- address completion rates
e. SLO section is incomplete- please see rubric

3. Recommendations for improvement:

See above

4. Recommended Next Steps:

X	**Proceed as Planned on Program Review Schedule**
	Repeat Comprehensive Review

Upon completion of PART 4, the Program Review document should be returned to discipline faculty/staff for review, then submitted to the Office of Instruction and Institutional Research and Planning for public posting. Please refer to the Program Review timeline.