Status: **Reviewed**

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OVERVIEW OF PROGRAM REVIEW AND PLANNING FOR INSTRUCTIONAL PROGRAMS

Program Review is about documenting the plans you have for improving student success in your program and sharing that information with the 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 our new Guided Pathways plan, this review becomes even more crucial for the success of our students and college.

We are using the Strengths, Opportunities, Aspirations, Results (SOAR) strategic planning technique to help us focus on our current strengths and opportunities, create a vision of future aspirations, and consider the results of this approach.

BASIC PROGRAM INFORMATION

Academic Year
2020-2021

Are you completing a comprehensive or annual PRP?
Comprehensive

Department Name
Computer Science and Information Systems

Discipline Name
Computer Science and Information Systems - Information Technology (CSIT)

Department Chair Name
Anthony Smith

Division Name
Mathematics, Science and Engineering

Website address for your discipline
http://www.palomar.edu/csit

Discipline Mission statement
The mission of the Information Technology Discipline in the Department of Computer Science and Information Systems is to offer a comprehensive transfer program and training opportunities in the field of Information Systems to the diverse Palomar College community. This mission is accomplished through courses of study that focus on the knowledge and skills required by Information System employers and transfer institutions to which our students will apply. Students of the Palomar College Information Systems program will be well-rounded professionals who are experienced in a variety of programming languages, database technologies, data analytics, and computer applications. These graduates will have a professional work ethic and will be adept in both academic and professional arenas.

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

Does your discipline have at least one degree or certificate associated with it?
Yes

Are any of your programs TOP coded as vocational (CTE/CE)?
Yes

List all degrees and certificates offered within this discipline.
CIS: Data Analytics AS, CA;
Management Information Systems AS, CA;
Information Technology AS, CA.

Please list the names and positions of everyone who helped to complete this document.
Ronald Burgher, Full-time Faculty
Terrie Canon, Full-time Faculty

Use the link to provided to help answer the staffing questions below. This form requires a login and password to access. Please use your Palomar email and password to log in.

Link: Permanent Employees Staff Count

Full-time Faculty (total number of FT faculty in your discipline)
7

Full-time Faculty (FTEF)
1.17

Part-time faculty (FTEF)
2.63

Classified and other permanent staff positions that support this discipline
Academic Department Assistant (12 mo), (30%), CSIT Systems Analyst (12 mo), (30%)

Additional hourly staff that support this discipline and/or department
Student Workers in IT Labs, Lab Tutor

PROGRAM INFORMATION

In this section you are asked to consider your programs, their learning outcomes, the annual number of completions, goals for completions and enrollment and efficiency trends.

PROGRAM LEARNING OUTCOMES

Begin this section by reviewing the Program Review reports for programs and courses in Nuventive Improve (TracDat). All active course and program learning outcomes should be systematically assessed over a 3-year cycle. First, look at program learning outcomes.

- **Program** = Leads to a degree or certificate
- **Discipline** = A group of courses within a discipline

*Programs will be able to complete program completion and outcome questions.

How well do your program's learning outcomes communicate the scope and depth of the degree/certificate offered?
CSIT programs are geared toward making certain that students completing their education can analyze IS problems, determine the best algorithms to solve these problems and implement these solutions. They do this while coming to understand and appreciate the serious and important ethical and social implications information systems have for our society. A substantial part of our professional effort is maintaining and enhancing working relationships with local employers. We do this through professional organizations and advisory committee interaction. Our program objectives, however, continue to reflect what we want students to achieve during their educational experience at Palomar.

How do they align with employer and transfer expectations?
As evident in the documentation of the current labor market, the opportunities that graduates of our program have for employment are excellent. The San Diego area has become a high-tech hub that provides excellent opportunities for graduates of our programs. Similarly, baccalaureate degree granting institutions continue to be eager to work with our department in coordinating the transfer of our students to their programs. Members of our department are meeting with representatives from California State University - San Marcos to continue this effort with the CSU-CCC Transfer Pathways Mapper Project. As in other years, the department continues to adjust and modify both the requirements and components of the degree programs.

Describe your program's plan for assessing program learning outcomes.
The CSIT discipline continues to refine the assessment of program learning outcomes through use of embedded questions in course tests and activities. Some faculty are utilizing project and presentation based activities to directly observe student achievement levels. Members of the program's faculty are also involved with professional organizations and actively track former student performance as a method of assessing program and course learning outcomes. The discipline is actively recruiting new adjunct instructors from local industry as a method of insuring students benefit from learning of "real world" experiences these professionals can relate from their organizations.

Summarize the major findings of your program outcomes assessments.
Our discipline, Information Technology, continues to experience high levels of change. New methods, products, techniques are always being implemented in response to new developments in the IT environment. Some legacy technologies, however, continue to be utilized by industry. This continued uncertainty requires that we adjust our courses and programs very rapidly. Our program objectives, however, continue to be well constructed. Both quantitative reports of student success in class work and reports from local employers reflect well on our efforts.

Reflecting on the major findings you summarized, what are some questions you still have about students' learning in your program that you have not yet been able to address with your outcomes assessments?
Although there is anecdotal evidence that graduates of our programs continue to advance through professional levels of the organizations they join after leaving Palomar College, there are currently no programs or techniques for formally assessing their achievements. There are also no methods to determine whether, after completing our programs, students have learned how to adeptly acquire new knowledge, skills and abilities as needed in their career paths.

Depending on the degree or transfer goals of our students, they have the choice of three different GE pathways:

- Associate Degree GE Requirements
- CSU GE Requirements
- IGETC Requirements

Palomar College has identified a set of General Education/Institutional Learning Outcomes, which represent the overall set of abilities and qualities a student graduating from Palomar should possess. Click here for a link to Palomar's GE/ILOs.

Next, review your course outcomes as they relate to Palomar's GE/ILOs.

How do the courses in your discipline support General Education/ Institutional Learning Outcomes? In your response, please specify which GE/ILO(s) your discipline supports.
It is critical that graduates of our programs have achieved the ability to communicate in written form, exercise quantitative reasoning, inquiry and analysis. The very nature of the work in information technology involves critical thinking and information literacy. Working in teams to solve technical problems and create marketable products will be daily experiences to graduates of our program. Our courses provide students with opportunities to observe, acquire, practice and demonstrate these skills.

Summarize the major findings from your course outcomes assessments that are related to the General Education/Institutional Learning Outcomes that your discipline supports.
Assessment of program learning outcomes of students within the Information Technology disciplines reveal competency in written form of communication through completion of assignments which require the creation of written documentation. Examination of the findings for quantitative reasoning, inquiry and analysis GE/ILO outcomes reveal that students demonstrate competency through projects that require them to use math based tools to extract meaning from numerical data and analyze the implications of those results. Many courses in the Information Technology program incorporate team projects to assure students have exposure to this vital outcome. More emphasis should be placed on increased use of this technique.

PROGRAM COMPLETIONS

Student success is at the core of what we do in assisting students in achieving their goals.

The Chancellor's Office Vision for Success stresses the importance of Program Completion as a major goal for our students. In addition, transfer and career readiness are key components of Palomar College's mission statement. This year, our funding formula has also changed reflecting this emphasis, providing additional funding as a function of the number of completions.

In this section we will identify a program standard and a stretch goal (what you would like to move toward) for program completions.

The standards represent the lowest number of program completions deemed acceptable by the College. In other words, if you were to notice a drop below the set standard, you would seek further information to examine why this occurred and strategies to increase completions.

In this section we will identify a program standard and a stretch goal (what you would like to move toward) for programs.

List the number of completions for each degree/certificate for the previous year.
Information Technology - CA: 7, AS: 6.
Computer Information Systems - CA: 2, AS: 2
Management Information Systems - CA: 3, AS: 3
CIS: Data Analytics - CA:2, AS: 1

Have your program completions Increased, decreased, or stayed the same over the last 5 years?
Increased

What factors have influenced your completion trends?
There are two major factors affecting completion trends in our discipline. Many of our adult students come to Palomar to gain a specific skill or technology and are not pursuing a certificate or degree. The other factor is the high level of demand for IT workers. Many potential students are fully employed and do not have time to work toward additional education. New CIS: Data Analytics and Management Info Systems degrees and certificates have been well enrolled and very successful.

Are the courses in your discipline required for the completion of other degrees/certificates?
Yes

Please list them
CSIT 105 - General Business AS degree
CSIT 125 - Business Information Worker Certificate of Achievement
CSIT 105 or CSIT 125 - Business Administration Transfer Degree
CSIT 105 or CSIT 125 - Economics Associate in Arts Degree
CSIT 150/CSWB 120 - Advanced Geographic Information Systems AS degree and CA
CSIT 105 - Retail Management Certificate of Achievement

Do you have programs with 7 or fewer completions in the last 5 years?
Yes

What steps are you taking to address these completions?
In 2020 we are revising the Information Technology AS and certificate programs to re-align the course offerings to better reflect the knowledge, skills and abilities required in the industry. These changes include making fewer classes required and offering more electives that will enable students to customize the degree or certificate they achieve in order to better fit their career requirements. The other programs in our discipline are new and have only been offered for the last year.

What is your program standard for program completion?
8

Why did you choose this standard?
Historically the Information Technology program has suffered low numbers of completions because many of the courses are attractive to working members of the profession and their objective has been to gain specific skills rather than complete a degree. Often they already have a degree and are returning strictly to gain a skill or knowledge set. The new programs in our discipline have not been offered previously so there is not a historical trend of completions.

What is your Stretch goal for program completion?
12

How did you decide upon your stretch goal?
Given the popularity of STEM majors in college, the outlook for a technically educated workforce, and the changes we are making to the program, we feel that the popularity the of program will increase and lead to more completions in the next few years.

ENROLLMENT AND EFFICIENCY TRENDS

Palomar College uses the WSCH/FTEF ratio as one indicator of overall efficiency in addition to the overall fill-rate for courses.

Although the college efficiency goal is 525 WSCH/FTEF and 85% fill-rate (minimal), there are many factors that affect efficiency (i.e. seat count / facilities / accreditation restrictions).

This information can be found by going to the "Program" page in the PRP Data Dashboard.

What was your enrollment trend over the last 5 years?
Stayed the same

What was your efficiency trend over the last 5 years?
Stayed the same

Were these trends expected? Please explain.
The Palomar College Information Technology discipline has been very stable in both fill rate and WSCH per FTEF over the past 5 years. This is actually better than the trend in community colleges in general. The American Association of Community Colleges reported that enrollment declined for both men and women in any age group in 2018 and that trend looked to continue in 2019. Also because of the limitations of our computer labs/classrooms, we can not enroll more students per section.

Program Information Summary

Consider your program outcome assessments, completions, and enrollment/efficiency trends, as well as other internal and external factors.

How have these factors contributed to the success of your program(s)?
Continued interest in the field of information technology and updating of the program with new degrees including CIS: Data Analytics has led to more students entering and completing the program.

How have these factors presented challenges for your program(s)?
Changes to the program that lead us to offer more "in demand" technologies sometimes attracts students for just that technology and not for a degree. In addition, it is difficult to find professionals with skills in these high demand fields.

The Chancellor's Office Vision for Success stresses the importance of reducing equity gaps through faster improvements of underrepresented groups.

ACCJC also requires that colleges establish institutional and program level standards in the area of success rates. These standards represent the lowest success rate 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.

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

In this section we will identify a course success rate standards and a stretch goal (what you would like to move toward) for programs.

Course Success Rates by gender, age, ethnicity, special population, location, and modality (You can access the Student Equity Plan on the SSEC website https://www2.palomar.edu/pages/ssec/)

COURSE INFORMATION

COURSE SUCCESS AND RETENTION

What is your program's standard for Discipline COURSE Success Rate?
68.8%

Why did you choose this standard?
Many colleges across the country have required assessment tests to evaluate a potential student's aptitude for computer and information systems topics. These assessments are intended to give students a sense of their ability for accomplishing technological work. Palomar does not have such an assessment and enables students to enroll without previous exposure to technical subjects. Therefore there are some students that come to the realization that they are not well suited for this type of subject and withdraw from the class.

Have your overall course success rates increased, decreased, or stayed the same over the last 5 years?
Increased

Was this expected? Please explain.
Although small, the success rate in the Information Systems discipline has increased every year since 2016. Percentage improvements have gone from a low of 49.8% in 2016 to 65.9% in 2019. This success can be attributed to several factors. The aggressive development of new degree programs and adjustments to the courses in the major have given students more opportunities to complete. In addition, embedded tutors and other tutor services available have provided additional instruction to at risk students.

What is your stretch goal for course success rates?
70.0%

How did you decide upon the goal?
The addition of our two new programs (CIS: Data Analytics and Management Information Systems) should attract students that have a good understanding for their interests and abilities. These new programs are resulting in higher completion rates and should continue the trend into the future.

Have your overall course retention rates increased, decreased, or stayed the same over the last 5 years?
Increased

Was this expected? Please explain.
For the first four years, the retention rate for your discipline fluctuated between 86 and 88 percent. The last year, however, rated at 92.9%. Once again the aggressive addition of new degrees and adjustments to the major itself is undoubtedly the cause of the improvement.

Are there differences in success or retention rates in the following groups? (choose all that apply)

When or where (time of day, term, location)

When or Where: Why do you think differences based on when or where the course is offered exists? What do you need to help close the gap?
Success rates for day students has increased from 40% in 2018 to 59% in 2019. More students seem to be enrolling in the new programs that will be transferring to traditional 4 year programs. These students more typically fit the full-time, day student profile.

Are there differences in success/retention between on-campus and online courses?
Yes

Please share any best practice methods you use for online courses.
Typically on-campus students in our discipline are young traditional college students, many just out of high school. These students populate many of our day classes. Online students are very often working professionals that can not attend day, on-campus classes. Many of our on-campus students are just starting their educational careers and sometimes find that IT is not for them which leads to lower retention rates. Online students are seeking specialized courses that they need for a specific job requirement. This results in higher levels of retention and success.

COURSE LEARNING OUTCOMES

How is course assessment coordinated across sections and over time?
Some courses (CSIT 105) use the same texts and share assessment techniques across sections. This results in high levels of coordination between the measurement of learning outcomes. In other courses that are taught by multiple part-time faculty, assessment methods are assigned by the discipline specialists for that course. Faculty also meet regularly to discuss assessment techniques.

How have you improved course-level assessment methods since the last PRP?
After a few years of using survey-based course-level assessments, the discipline has moved toward utilizing more granular assignment and project based methods. Most instructors have now identified elements of tests and projects that can be evaluated across the entire class.

Summarize the major findings of your course outcomes assessments.
Instructors have reported that outcome assessments that are part of projects are more difficult to rate across an entire class but are an excellent way to help students judge their own level of understanding and skill acquisition. Assessments that are identified as specific questions within a test are easy to aggregate across classes.

Reflecting on the major findings you summarized, what are some questions you still have about student learning in your courses that you have not yet been able to address with your outcomes assessments?
In some courses, especially introductory programming courses, there are students of widely differing aptitudes, aspirations and existing skills. This variability makes measuring outcomes for the course as a whole very difficult and of questionable value.

What are some improvements in your courses that have been, or can be, pursued based on the key findings from your course learning outcomes assessments?
Education is personal. Everyone has their own entry level knowledge, abilities and goals for their education. Attempting to measure and apply a metric to the collective achievements of a widely diverse group of students is not a valid activity.

PROGRAM CURRICULUM ALIGNMENT, MAPPING, SCHEDULING, & PLANNING

The Chancellor's Office Vision for Success stresses the importance of decreasing the average number of units accumulated by CCC students earning degrees.

Palomar College's Guided Pathways plan includes clarifying paths for students by sequencing course offerings so that they support scaffolding and timely completion. Our goal is to ensure learning through:

- The mapping and assessment of clear program outcomes that are also aligned to employer and/or transfer institution expectations.
- Engaging and applied learning experiences.
- Effective instructional practices to support students in achieving success.

How do your course outcomes help your students achieve their program outcomes?
The program outcomes are overarching outcomes and concepts are overarching outcomes of the entire degree. Each course outcome is a milestone to be fulfilled as steps towards the program outcomes. For example, in the CIS:Data Analytics the program outcome of "Information Systems - Demonstrate the ability to analyze business and technical challenges and then identify and define the computer software application requirements appropriate for the business process." is achieved by examining the software topic of each course and then after many applications are explored and learned a student can realize the outcome of "computer software application requirements appropriate". Each of the course outcomes include: CSIT 226 - Create Data Visualizations, CSIT 150 - Use and test software, CSIT 165 - Compose R Program, CSCI 112 - Create algorithms, and so on.

How do your degree maps and scheduling strategy ensure scaffolding (how all parts build on each other in a progressive, intentional way)? How do you share the maps with students?
Our degree maps and scheduling are published in the Palomar Pathways to be visible to all students and prospective students of Palomar College. Our degrees map to ensure scaffolding due to the fact that most need one or two prerequisite courses, and then they can be taken in any order to allow students to take multiple classes at once and complete in a timely manner. Due to these factors some degrees such as CIS:Data Analytics can be taken in one or two years.

What is your departmental strategy on how you schedule your courses including the time of day you offer courses? Do you use 4-week, 8-week, or block scheduling (putting required classes near each other) to organize required classes to meet the needs of disproportionately impacted students? Please explain.
Our primary demographics of students are those starting college shortly after high school and those who are returning to earn high paid technical skills. To meet the needs of first time college students we typically offer block scheduling to allow students to schedule a fulltime schedule during a typical daytime schedule. Block scheduling works best rather and 4 or 8 week blocks as students typically need the duration of time to learn technical skills. To address the needs of returning students we offer both evening and online classes. Our online schedule is quite popular and successful due to the fact that many students choosing online are fulltime or part time working professionals eager to learn new skills for employment. Due to the fact of busy schedules with family and employment, the online environment offers classes to students who would not be able to attend a fixed schedule. All of our degrees can be taken fully online, or when not in a pandemic face to face as well.

How do you work with other departments that require your course(s) for program completion?
The department communicates with the Math Department to make sure the math required courses are offered at least once a year.

Does your discipline offer cross-listed courses?
No

Are there curriculum concerns that need to be resolved in your department? What are they?
Curriculum must be examined every year to determine if changes need to be made.

Are there courses that should be added or removed from your program - please explain?
Computing is such a dynamic field that courses are added and removed each year as technology changes. One such change includes moving CSIT 165 - R Programming from an elective to a required course. In the last year it is in more demand than it was previously. We also added a few new courses to our CSIT Information Technology degree and the CIS:Data Analytics degrees including CSNT 150 - AWS Foundations in Cloud Computing, CSIT 275 - Advanced Python, and CSIT 279 - Data Mining.

How is the potential need for program/course deactivation addressed by the department?
At this time no deactivation is needed.

Is your department pursuing non credit or not-for credit options at this time?
No

Are there areas you would like to expand?
The area of Data Analytics will be expanding. It is our hopes to work with the Math Department to create a Data Science lower division transfer degree. This would allow two choices for students including the Data Analytics degree to learn analytics software skills, this is ideal for students who already have earned a degree in another topic and want to learn new skills to work in Data Analyics. In addition it addresses students looking for a four year degree, the lower division of Data Science can be completed at Palomar College and then transfer to UCSD or UC Berkeley in Data Science a very popular impacted degree at the four year institutions.

Click here for information about Noncredit and Community Education

Is your department offering online classes?
Yes

How do you consider student needs when determining which classes and how many classes should be offered online versus face-to-face?

Currently, during COVID all classes are offered online only. Before and After the pandamic we try and offer courses in both online and face-to-face classes to meet all students needs. If the class is new or with smaller enrollment we will offer online first to build enrollment in the course and then offer an additional section of face-to-face. The offering of online first is due to the fact that online can reach more students than face-to-face. In addition, many students are working adults and prefer online classes.

Describe other data and/or information that you have considered as part of the evaluation of your program

Current technology drives curriculum changes as we need to offer current technology to attract high enrollment. Faculty meet with industry leaders in technology outreach groups as well as other colleges to determine the best technology and courses to offer.

CAREER AND LABOR MARKET DATA

The Chancellor's Office Vision for Success stresses the importance of increasing the percent of exiting students who report being employed in their field of study. It is important for us to consider how **_all_** of our programs connect to future careers.

Go to this website https://www.onetonline.org/ and enter your discipline in the bubble on the top right for ideas about potential occupations. Click on an example to see more detail.

The following websites are for CTE related data:

- Centers of Excellence (many other data resources besides supply and demand) Password: GetLMI
- LaunchBoard
- LaunchBoard Resource Library
- Chancellor's Office Data Mart
- Career Coach-San Diego Workforce Partnership
- EDD Labor Market Info
- Career One Stop

What kinds of careers are available for people who complete your programs (and/or transfer)? (Refer to link above) Are there any new or emerging careers and if so how would the new or emerging careers impact your future planning?

Careers from Information Technology
There are a wide range of careers available to students graduating with a degree in Information Technology. New fields are being developed every year and the demand for people to fill these positions is strong.

Some of the titles currently popular and in high demand are:
Computer Systems Engineers and Architects
Web Administrators
Geographic Information Systems Technicians
Database Managers and Architects
Business Intelligence Analysts
Information Technology Project Managers
Data Science Architects and Analysts

The faculty of the Information Technology discipline are constantly scanning the environment for new and changed components of the IT sector of the economy. We have developed two new programs within the last few years and contemplate more as the field changes.

What are the associated knowledge, skills, abilities (KSA's) needed for the occupations listed above? (click examples in the link above to get ideas)
A basic skill that an employer looks for in an IT professional is the ability to write computer code in one or more of several programming languages. People in this career path should have an understanding of the process of software development. Because of the need to work and for others, communication skills are also of high importance. These needed skills are not only verbal but are also needed in written communication. Obviously knowledge of computer networks and operating systems are required as well as the ability to troubleshoot these systems. Many times solving problems with computer systems require analytical and critical thinking.

How does your program help students build these KSA's?
The Information Technology program is structured to introduce, solidify and evaluate the knowledge, skills and abilities of our students through rigorous instruction, practice and evaluation. The program introduces students to the required knowledge in the program in the early courses and then utilizes later components of the curriculum to build upon and extend these requirements. The process includes interaction with instructors, texts, tutorials, tutors, and each other. Students also have opportunities to participate in clubs, field trips, and professional organizations.

Work Based Learning

Applied and work-based learning (WBL) allows students to apply classroom content in professional settings while gaining real-word experience. WBL exists on a continuum that reflects the progress of experiences from awareness-building to training. Students often cycle back through the continuum many times throughout college and throughout their career. Faculty play a critical role in ensuring these experiences are embedded into curriculum and support learning.

Have you incorporated work based learning (work experience, internships, and/or service learning) into your program?
No

Do you want more information about or need assistance integrating work-based learning into your program?
Yes

Please list any questions and describe what you need to integrate work-based learning.
Although we are not currently offering formal WBL opportunities in the program there have been several students that have taken it upon themselves to arrange for and complete work experiences with local companies and organizations. The department needs to make more of an effort in this important additional component of a student's Information Technology education.

How do you engage with the community to keep them apprised of opportunities in your program?
Several members of our department have been involved in developing partnerships with local High Schools to offer dual enrollment opportunities to their students. We have on-going efforts to collaborate with local colleges and universities. Recently we have begun having regular meetings with the Palomar Math department to explore offering programs with components from both departments in new areas such as Data Science. Members of our department are also active in professional organizations.

What is the regional three-year projected occupational growth for your program(s)?
Information technology career options are extremely varied and that makes projecting occupational growth difficult. In general, however, the U.S. Bureau of Labor Statistics in their 2019 National Employment projected job growth lists computer and information systems growth rates for this career field at much above growth. Increases of 15% during the years between 2014 and 2024 are predicted.

What is being done at the program level to assist students with job placement and workforce preparedness?
There are currently no program level efforts to assist students with job placement. There are examples of individual faculty members being contacted to recommend students to local employers.

When was your program's last advisory meeting held? What significant information was learned from that meeting?
Our last advisory meeting was held by Zoom Teleconference on April 24, 2020. There were announcements of efforts to contain the COVID-19 virus. A new cybersecurity Bachelor's degree program is being offered by National University and there may be opportunities to articulate our program. A recent survey of Industry / Labor Market trends was announced. The next advisory meeting will be held, via Zoom on November 6, 2020.

What are the San Diego County/Imperial County Job Openings?
The Labor Market Information from the Centers for Excellence website predicts a 10% growth rate between 2018 and 2023 for an increase of 539 new jobs with annual openings in the San Diego and Imperial County area of 530 positions. Computer Systems Analysts were projected to grow at a 9.2% rate between 2015 and 2018.

Program Goals

In the previous sections, you identified opportunities for improvement. Using these opportunities, develop 3-year SMART goals for your department. Goals should be Specific, Measurable, Attainable, Relevant, Time-Specific. Ensure your goals align with the mission of your department and/or the College's strategic plan.

Please list all discipline goals for this three-year planning cycle. Click here for previous PRPs and goal information.

Goals

Goal 1

Brief Description
Increase student access, progress, and completion, while decreasing equity gaps, through additional lab assistants and tutoring services.

Is this a new or existing goal?   **Goal Status**

Existing   Ongoing

How will you complete this goal?
Request increased staffing of tutoring services. Enrollment is high in entry level classes, our goal is to assist in their entry level classes to improve enrollment/retention in our advanced and capstone classes.

Outcome(s) expected (qualitative/quantitative)
Improvements to CSIT student retention and success. This will assist in generating an increase in students graduating from our programs.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
Achievement of this goal will lead directly to accomplishing the mission of our discipline, the college's strategic plan and better enable students to accomplish their educational goals in a predictable manner. In addition, it will lead to the college's startegic plan of Equity as it will assist student groups who are under represented in promising STEM careers.

Expected Goal Completion Date
6/1/2021

Goal 2

Brief Description
Insure CSIT degrees and certificates are offering current concepts and tools utilized in industry for IT, data analysis, machine learning, advanced software skills, and other emerging technology.

Is this a new or existing goal?

New

How will you complete this goal?
Fund new laptop computers for faculty as teaching emerging software technologies requires current hardware to successfully implement the software required.

Outcome(s) expected (qualitative/quantitative)
Hardware to meet the needs of our faculty and students to support IT degrees.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
This goal aligns with the college strategic plan in that it assists with teaching leading edge technology in high demand workforce fields thereby assisting in VfS Goal 4: Workforce. Will enable faculty to further the knowledge of students of current tool usage in industry. It is quite well known that technology is always changing, therefore to offer leading edge education faculty must continually reeducate. One could estimate that technology could change faster than any major here on campus.

Expected Goal Completion Date
7/1/2021

Goal 3

Brief Description
Improve technology in our classrooms including audiovisual equipment as our classrooms are some of the oldest on campus. In the CSIT department the classes taught often display software and solutions to students. With our current technology students in the back of the room can't see the display.

Is this a new or existing goal?
New

How will you complete this goal?
Purchase new audiovisual equipment for all our in person classrooms.

Outcome(s) expected (qualitative/quantitative)
Increased success for students.

How does this goal align with your department mission statement, the college strategic plan, and /or Guided Pathways?
Achievement of this goal will lead directly to accomplishing the mission of our discipline, the college's strategic plan and better enable students to accomplish their educational goals in a predictable manner.

Expected Goal Completion Date
6/1/2021

RESOURCES

Congratulations! You are nearing completion. In this section, you will consider the resources you need to implement your three-year program review plan and/or address any findings from your assessment of your discipline.

The section is organized into the following four parts:

PART 1: Staffing Needs (Faculty and Additional Staff)

PART 2: Budget Review

PART 3: Technology and Facilities Needs

PART 4: One Time Request for Other Needs (NonTechnology Equipment, Supplies, Operating Expenses, Travel)

PART 1: STAFFING NEEDS

Requests for faculty will follow the prioritization process currently in place in IPC, and the IPC SubCommittee. Requests for new staff positions will be prioritized at the division level and reviewed at Exec.

Are you requesting additional full-time faculty?
No

NOTE: If you are requesting full-time faculty, you must go back to the Labor Market section of the form to complete that section. It is required when requesting additional faculty positions.

Are you requesting new Classified, CAST or AA positions?
No

PART 2: BUDGET REVIEW

Review your Budget/Expenditure reports for 2018, 2019, 2020. Consider your three-year PRP plan.

Click on the link below to access directions to the *Available Budget Report* to complete this section.

How to Request the Available Budget Report

Reflecting on your three-year PRP plan, are there any budget considerations you would like your dean/supervisor to be aware of for the upcoming year?
No

NOTE: PARTS 3 and 4 – TECHNOLOGY, FACILITIES AND OTHER NEEDS

This year the College is implementing two new processes related to resource needs coming from the PRP process.

1. One-Time Fund Requests. The college is implementing a process for prioritizing and allocating funds for one-time needs/requests tied to Program Review and Planning. Prioritization will take place through participatory governance in planning councils and the Budget Committee. Then, a recommendation will be made to Exec for funding of request utilizing various funding sources.

   For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES.

   Consider submitting one-time requests only if you have verified that you cannot fund the request using your general discretionary funds or other funds.

2. Technology and Facilities Review. From now on, ALL requests for technology will go through an institutional review process. If you request technology here, you will see a description of the process below.

PART 3: TECHNOLOGY AND FACILITIES NEEDS

Will you be requesting any technology (hardware/software) this upcoming year?
Yes

Technology Request

Technology Request 1

What are you requesting?
Laptop Computer

Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible. Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.
Full Time faculty Terrie Canon is in need of current hardware technology to support teaching, learning, implementing current software and tools. A laptop computer has been approved for two years in a row (2019, 2020) and the money was reallocated before the funds were spend. This is an urgent need for a laptop computer and supporting devices including keyboard, mouse, soundbar, monitor, and a docking station. The most recent bid from is for 2825 dollars, quote number 3000053615687.1. This request aligns with discipline goals in every way as teaching and using technology in a current computing environment to teach current technology.

Estimated Amount of Request.
$2,900.00

Will you fund the request through your budget or other sources?
Existing Budget, One Time Request

What PRP plan goal/objective does this request align with?
Goal 2 - Insure CSIT degrees and certificates are offering current concepts and tools utilized in industry for IT, data analysis, machine learning, advanced software skills, and other emerging technology.

What Strategic Plan 2022 Goal:Objective does this request align with?
2:4

**If you have multiple requests for technology and had
to prioritize, what number would give this? (1 =
Highest)**
1

**Do you think that your request for technology will require
changes to a facility?**
No

Technology Request 2

What are you requesting?
Audiovisual equipment to improve classroom experience.

**Provide a detailed description of the item requested. What is it, and why do you need it? Please be as descriptive as possible.
Include in your description how the requested item aligns with your discipline's PRP goals, analysis of PRP data, SLO/SAOs.**
Replace AudioVisual equipment in all labs for the CSIT department.
Equipment for all 6 labs the CSIT manages.

Estimated Amount of Request.

Will you fund the request through your budget or other sources?
Existing Budget

What PRP plan goal/objective does this request align with?
Improve technology in our classrooms including audiovisual equipment.

What Strategic Plan 2022 Goal:Objective does this request align with?
1:1

**If you have multiple requests for technology and had
to prioritize, what number would give this? (1 =
Highest)**
2

**Do you think that your request for technology will require
changes to a facility?**
No

Note about technology requests:

All technology requests will now go through a review process before prioritization.

- *Your dean/director will send you a Technology Request Checklist (aka Technology Proposal Analysis Checklist).*
  - *You must complete this checklist and return it to your dean no later than 10/30/2020.*

- *Once the dean approves the form and the request, the dean will send the document to the Technology Review Committee to determine IS resources needed, any integration issues, and/or potential overlap with existing technology.*
- *The results of the review will be sent to the dean and chair with feedback.*
- *The dean will determine whether or not the request moves forward for prioritization and/or implementation.*
  - *Requests for one-time funding will move forward for prioritization.*
  - *Requests that use funding from your department budget may move forward for purchase.*

Do you have resource needs that require physical space or modification to physical space?
No

PART 4: OTHER ONE-TIME NEEDS

For more information about funding sources available, see IELM BLOCK GRANT, LOTTERY, PERKINS AND STRONG WORKFORCE GUIDELINES. Please check with your department chair on the availability for this cycle.

Do you have one-time requests for other items (e.g., Non-Technology Equipment, Supplies, Operating Expenses, Travel) that your budget or other funding sources will NOT cover?
No

I confirm that the Program Review is complete and ready to be submitted.
Yes

Enter your email address to receive a copy of the PRP to keep for your records.

Review

Chair Review

Chair Comments
Looks good.

Chair Name   **Chair Sign Date**
Tony Smith   10/29/2020

Dean Review

Strengths and successes of the discipline as evidenced by the data and analysis:
The department has done an excellent job in updating curriculum to align with the rapidly changing needs of industry. They recognize the benefit of WBL and have worked with community members to best support students by providing co-curricular experiences that advance a students skillset beyond what is learned in the classroom. The frequent review of employment trends has also led to the development of new degrees that also better align with the newly developed data science degrees offered by four-year institutions. Although completion rates are low the department has courses included in 6 other degrees which demonstrates the collaborative strengths of the department to work across divisions to meet needs of industry and support students.

Areas of Concern, if any:
Enrollment has remained stable for some time but the department has made a tremendous effort to expand curriculum and student interest.

Recommendations for improvement:
Since enrollment is stable and new curriculum is being developed it will be very important for the department to develop a marketing plan in collaboration with the STEM Center and STEM Counseling. I would also recommend supporting the need for computers and related software within the STEM Center so that students have additional access to needed programs. This is of particular importance as the program continues to expand without the expansion of facilities. Computer labs may become less available to students as the program continues to grow.

Dean Name	**Dean Sign Date**
Patricia Menchaca	11/3/2020

IPC Review

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

Areas of Concern, if any:
Although small, the success rate in the Information Systems discipline has increased every year since 2016. Percentage improvements have gone from a low of 49.8% in 2016 to 68.8% in 2020 but that still less than the District success rate 70%.

Recommendations for improvement:
We recommend the department to develop a marketing plan in collaboration with the STEM Center and STEM Counseling.

IPC Reviewer(s)	**IPC Review Date**
Najib Manea and Shanon Beach	12/4/2020

Vice President Review

Strengths and successes of the discipline as evidenced by the data and analysis:
increased completions; actively working to develop and revise courses to stay up with field; improved course success rates with understanding of value of curriculum and tutoring support; collaboration with Math;

Areas of Concern, if any:
1. how to track student success once out of program and in career
2. "Education is personal."
3. No WBL

Recommendations for improvement:
1. discuss tracking of students post-program with dean and IRP
2. While I agree that students bring what they bring to their education, the use of SLOs to help identify where students are struggling and then applying remedies to those items we as educators can control can positively impact a student's success in a course. The way we teach and support our students does make a difference.
3. Meet with Nichol Roe to discuss WBL and Career Continuum and how it can impact your students.
4. Work with dean and STEM/MLC manager to discuss ways to strengthen tutoring support for your discipline.
5. Discuss computer replacement plan with dean and IS.

Vice President Name	**Vice President Sign Date**
Shayla Sivert	1/3/2021