

1. Assessment Plan - Four Column



PIE - Business: Computer Information Systems (CIS) Unit

Narrative Reporting Year

2017-18

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Program Planning Dialog:

1. Decided to offer work experience courses for several of our disciplines
2. Decided to create three new Data Analysis classes and a Data Analysis Certificate
3. Decided to remove two courses from the database and programming degree requirements to bring the total units requirements more in line with the requirements of other degree programs
3. Decided to hire a new network security instructor for the 2018-2019 academic year
4. Based upon consistently low enrollment, decided to remove the CISP 14 Advanced Visual Basic course from our program and also remove the Visual Basic Certificate and Degree
5. Due to significant cost savings for our students, decided to use online textbooks instead of printed textbooks for more of our courses

External Conditions, Trends, or Impacts:

1. The continued growth of the cybersecurity industry has led to more students pursuing networking and security programs
2. Advisory Committee recommendations have resulted in changes to our current courses
3. The diminishing use of the Visual Basic Programming language in industry has negatively affected the number of students enrolling in Visual Basic classes
4. Technology changes forces the department to continually update its knowledge, equipment and software
5. The costs of printed textbooks continue to rise--resulting in many instructors choosing to use online textbooks
6. There is a possibility that future department funding will be tied to the number of students completing a program

7. A trend toward private and public cloud service has been taking place in both industry and education. We need to allocate funding to research and test the feasibility of conducting our labs in the cloud.

8. According to a Global Information Security Workforce Study issued by Frost & Sullivan, in conjunction with the Center for Cyber Safety and Education and (ISC)², by 2022, there will be a shortage of 1.8 million information security workers

Internal Conditions, Trends, or Impacts :

1. The networking/security program continues to be the most popular program in the CIS Department

2. The department continues to have a large percentage of classes taught by adjunct faculty

3. More students are attempting to pass classes without buying a textbook.

4) CIS programs are not highly advertised compared to other departments in the college. We do not see our programs advertised in any format or site in or out the campus.

Critical Decisions Made by Unit:

1. Decided to offer work experience courses for several of our disciplines

2. Decided to create three new Data Analysis classes and a Data Analysis Certificate

3. Decided to remove two courses from the database and programming degree requirements to bring the total units requirements more in line with the requirements of other degree programs

3. Decided to hire a new network security instructor for the 2018-2019 academic year

4. Based upon consistently low enrollment, decided to remove the CISP 14 Advanced Visual Basic course from our program and also remove the Visual Basic Certificate and Degree

5. Due to significant cost savings for our students, decided to use online textbooks instead of printed textbooks for more of our courses

6. Decided to begin researching the feasibility of using public and private cloud services for our lab classes.

Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement:

1. The department had 208 certificate and degree program completers in 2016-2017 and 89 completers with one semester left in 2017-2018.

2. The CIS Cybersecurity team finished 3rd out of 65 teams in its bracket and 23rd out of 149 teams nationally at the National Cybersecurity League competition.

3. In another National Cybersecurity League competition we had two teams competing. Team 1 came in 21 (top 12%) and team 2 came in 142 with 835 points. There were 174 teams that competed.

4. In the Western Regional Collegiate Cyber Defense Competition (WRCCDC) invitational our team placed 8th for WRCCDC out of 21 teams.

5. In the Spring NCL postseason competition Mt. SAC teams placed 32nd and 50th out of 250 teams competing nationwide.

Notable Achievements for Theme B: To Support Student Access and Success: 1. Every course SLO conducted during the 2017-2018 academic year obtained the criteria

percentage goal for successful student learning outcomes

Notable Achievements for Theme C: Secure Human, Technological, & Financial Resources: 1. CIS hired a new full-time instructor for the 2017-2018 academic year

2. CIS received approval to hire an additional full-time instructor for the 2018-2019 academic year

Notable Achievements for Theme D: To Foster an Atmosphere of Cooperation and Collaboration: 1. Continued our partnership with Kaiser Permanente--resulting in four students obtaining jobs at Kaiser this academic year.

2) The CIS Club and the CIS Department hosted the 2018 Global Azure Bootcamp on April 21, 2018 which exposed students to IT professionals and contacts and learn from the many presentations given during this one-day conference. Two possible internship contacts approached us to employ our students in the future. Approximately 200 people attended this event.

Contributors to the Report: Barry Andrews, Victor Zamora, Ana Degtyareva, Sohair Zaki, Jim Gau, Rich Patterson, Jaishri Mehta, John Blyzka

| <i>Unit Goals</i> | <i>Resources Needed</i> | <i>Where We Make an Impact: Closing the Loop on Goals and Plans</i> |
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| <p>Update equipment - Update our classroom equipment as needed to maintain optimal response times Status: Archive Goal Year(s): 2016-17, 2017-18 Date Goal Entered (Optional): 09/01/2016 Date Goal Archived/Inactivated (Optional): 09/01/2016</p> | <p>Full Funding Requested - Need new computers, servers, network equipment and software every 2-3 years to maintain optimal performance and to stay current with the IT industry. Lead: Barry Andrews One-Time Funding Requested (if applicable): 10000 Type of Request: Instructional Equipment Planning Unit Priority: Medium What would success look like and how would you measure it?: New equipment and/or software is obtained and used in the classroom. Documentation Attached?: No</p> | |
| <p>Student success - Increase the number of students earning CIS certificates and degrees Status: Active Goal Year(s): 2016-17, 2017-18, 2018-19 Date Goal Entered (Optional): 09/01/2016</p> | <p>Report directly on Goal</p> | <p>Reporting Year: 2017-18 % Completed: 0 Need \$50,000 in marketing funds to market the new Data Analytics courses and certificate to local communities (04/19/2018)</p> |

| Unit Goals | Resources Needed | Where We Make an Impact: Closing the Loop on Goals and Plans | |
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| | <p>and Cyber security competitions. Describe Plans & Activities Supported: 1 student x 19 hours per week at \$12 per hour x 35 weeks = \$8,000 Lead: Jim Gau One-Time Funding Requested (if applicable): 8000 Type of Request: Human Resources Planning Unit Priority: Medium In Progress - 1 student tutor for other: VB, SQL, Web programming, Microcomputer applications 5 hours per week at @12 per hours Lead: CIS Staff One-Time Funding Requested (if applicable): 2000 Planning Unit Priority: Medium</p> | <p>20% of the National Cybersecurity Competition. (04/12/2018) Reporting Year: 2016-17 % Completed: 50 The tutors have enabled all of the course SLO objectives to be met in the courses in which tutoring has been available. (04/12/2018)</p> | <p>resources next year. (06/22/2017) : Due to the positive impact on student success the department will continue to ask for tutoring resources next year. (06/22/2017)</p> |
| | <p>In Progress - 1 student tutor for C++ programming 19 hours per week ar \$12 per hour Describe Plans & Activities Supported: 1 student tutor for C++ programming 19 hours per week ar \$12 per hour Lead: Anna Degtyareva One-Time Funding Requested (if applicable): 9000 Type of Request: Human Resources Planning Unit Priority: Medium</p> | <p>Reporting Year: 2016-17 % Completed: 50 The tutors have enabled all of the course SLO objectives to be met in the C++ programming courses. (04/12/2018)</p> | <p>: Due to the positive impact on student success the department will continue to ask for tutoring resources next year. (06/22/2017)</p> |
| | <p>In Progress - 1 student tutor for Java programming 19 hours per week at \$12 per hour Describe Plans & Activities Supported: 1 student tutor for Java programming 19 hours per week at \$12 per hour Lead: Jaishri Mehta One-Time Funding Requested (if applicable): 6000</p> | <p>Reporting Year: 2016-17 % Completed: 50 The tutors have enabled the course SLO objectives to be met in the Java Programming course . (04/12/2018)</p> | <p>: Due to the positive impact on student success the department will continue to ask for tutoring resources next year. (06/22/2017)</p> |

| <i>Unit Goals</i> | <i>Resources Needed</i> | <i>Where We Make an Impact: Closing the Loop on Goals and Plans</i> |
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Planning Unit Priority: Medium

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| <p>Hire new instructor - Hire a full-time instructor who can teach a variety of CIS courses Status: Active Goal Year(s): 2017-18, 2018-19 Date Goal Entered (Optional): 06/15/2017</p> | <p>In Progress - Hire a full-time instructor who can teach a large variety of courses Describe Plans & Activities Supported: New full-time instructor Lead: Barry Andrews One-Time Funding Requested (if applicable): 100000 Planning Unit Priority: High What would success look like and how would you measure it?: A new full time instructor is hired</p> | <p>Reporting Year: 2016-17 % Completed: 100 An instructor was hired. This satisfied a dept goal of having an additional full-time programming and database instructor. The new hire did not directly impact course SLOs. (04/12/2018)</p> |
| <p>Cloud services - Begin moving toward using public and private cloud services to teach our lab classes Status: Active Goal Year(s): 2018-19 Date Goal Entered (Optional): 04/25/2018</p> | <p>Full Funding Requested - Funds to pay for public cloud services Describe Plans & Activities Supported: In order to save on future equipment costs necessary to stay current with industry technology the department is considering moving to software based cloud services. Lead: Jim Gau One-Time Funding Requested (if applicable): 50000 On-Going Funding Requested (if applicable): 10000 Type of Request: Instructional Supplies Planning Unit Priority: Low What would success look like and how would you measure it?: One or more lab classes would be taught and would perform their lab exercises on cloud-based software.</p> | |
| <p>Training funds - Obtain training funds Status: Active</p> | <p>In Progress - Send 2-3 instructors to programming, networking and/or</p> | <p>Reporting Year: 2016-17 % Completed: 50</p> |

| <i>Unit Goals</i> | <i>Resources Needed</i> | <i>Where We Make an Impact: Closing the Loop on Goals and Plans</i> |
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| <p>Goal Year(s): 2017-18, 2018-19 Date Goal Entered (Optional): 09/01/2016</p> | <p>computer security training workshops Describe Plans & Activities Supported: Funds to attend training sessions Lead: CIS full-time staff One-Time Funding Requested (if applicable): 6000 Type of Request: Professional Development, Research Planning Unit Priority: Medium What would success look like and how would you measure it?: Instructors will teach the information acquired at the training workshops to their students and update their course curriculum to include new technology.</p> | <p>Training funds were received this year. However, this goal is not complete because we will need more training funds next year. (04/12/2018)</p> |
| <p>Industry Certification Exams - Increase the number of CIS students passing Industry Certification exams Status: Active Goal Year(s): 2017-18 Date Goal Entered (Optional): 06/13/2017</p> | <p>In Progress - Increase the number of CIS students passing Industry Certification exams Describe Plans & Activities Supported: Network+ and Security+ exam preparation materials Lead: Barry Andrews One-Time Funding Requested (if applicable): 1000 Planning Unit Priority: Medium What would success look like and how would you measure it?: 25% more students will pass industry certification exams Documentation Attached?: No</p> | <p>Reporting Year: 2016-17 % Completed: 25 Still in progress. (04/12/2018)</p> |
| <p>Marketing Funds - Market the CIS Dept in general and specifically market our three new Big Data Analytics courses, our new Big Data Analytics Certificate, and our network</p> | <p>Full Funding Requested - Money to market our new Big Data Analytics program . Describe Plans & Activities Supported: Work with the Mt. SAC</p> | |

| <i>Unit Goals</i> | <i>Resources Needed</i> | <i>Where We Make an Impact: Closing the Loop on Goals and Plans</i> |
|--|---|---|
| <p>security program to nearby communities in order to maximize course enrollments.</p> <p>Status: Active</p> <p>Goal Year(s): 2018-19</p> <p>Date Goal Entered (Optional): 04/25/2018</p> | <p>marketing department to use multiple advertising strategies to generate awareness of our new Big Data Analytics program in the Mt. SAC region.</p> <p>Lead: Sohair Zaki and Barry Andrews</p> <p>One-Time Funding Requested (if applicable): 50000</p> <p>On-Going Funding Requested (if applicable): 10000</p> <p>Type of Request: Marketing</p> <p>Planning Unit Priority: High</p> <p>What would success look like and how would you measure it?:</p> <p>Enrollment in CIS courses overall will increase and the new Big Data Analytics classes would be fully enrolled</p> <p>Full Funding Requested - \$20,000 to market the network security program</p> <p>Describe Plans & Activities Supported: The funds would be used to advertise the network security department using a variety of media (billboards, buses, newspaper, radio, etc.)</p> <p>Lead: Barry Andrews and Paul Chiu</p> <p>One-Time Funding Requested (if applicable): 20000</p> <p>On-Going Funding Requested (if applicable): 5000</p> <p>Type of Request: Marketing</p> <p>Planning Unit Priority: Medium</p> <p>What would success look like and how would you measure it?:</p> <p>Enrollment in network security courses would increase by at least 15%</p> | |