



Cycle: 2018-2021

CAS WITH A MAJOR IN Fundamentals of Networking

Program Mission Statement:

The Network Systems Management program prepares students for entry-level positions as network administrators, network managers, network designers, network operations specialists, network technicians, network installers, network support specialists or IT technicians.

Division: Technical and General Education

AVP: Dan Averette

Department Chair: Pete Gioldasis

Director: Paul Anderson

SACSCOC Standard: 8.2A

Accrediting Agency: Yes No

Name: NA

Certification Exam(s): Yes No

Agency Name:

Credential: NA

Program Student Learning Outcome	Monitoring Year
1. Demonstrate ability to apply technical knowledge and skills to develop and implement hardware and/or software solutions within the realm of information technology that meet specified design and performance requirements.	2018-2019
2. Build, maintain, and troubleshoot to solve common information technology problems and implement secure workable solutions.	2018-2019
3. Students will be able to build and maintain secure networks.	2019-2020
4. Demonstrate proficiency in maintaining end user devices to include personal computers, tablets, etc.	2019-2020
5. Design and build inter-networked environments incorporating routers and switches applying proper mathematical foundations in designing scalable TCP/IP networks using appropriate protocols to meet design requirements.	2020-2021

STUDENT LEARNING OUTCOMES FOR CAS.NET – 2018-2019

A. Program Student Learning Outcomes	B. What courses are PSLOs Assessed	C. Methods for Outcomes Assessment	D. Expected Level of Program Performance	E. Data Collection	F. Results	G. Plan For Improvement
What should the graduates of your program be able to do?	Where do you see evidence that the student can do these things?	How does your program evaluate student/graduate skills/abilities?	What is the expected level of student performance <u>for the program</u> ?	When will you collect the data needed to evaluate the performance of the program?	What are the results of the evaluation? NOTE: include student ratio with all results.	How will you use this information to improve the program
1. Students completing the NET certificate will: “Demonstrate the ability to apply technical knowledge and skills to develop and implement hardware and/or software solutions within the realm of information technology that meet specified design and performance requirements”.	IST 202 CISCO Router Configuration	The students will demonstrate their abilities by successfully completing skills exam.	70% of the students will receive 70% or higher on the exam.	Spring 2019	Met. 11 out of the students 15 (73%) received a 70% or higher on the artifact chosen for this assessment. The lowest score for this artifact was 61% and the highest was 100%. Mean was 78%.	Benchmark was met. Skills exams have been updated. Course content and teaching strategies will also be modified for future terms to address areas of difficulty.

STUDENT LEARNING OUTCOMES FOR CAS.NET – 2018-2019

A. Program Student Learning Outcomes	B. What courses are PSLOs Assessed	C. Methods for Outcomes Assessment	D. Expected Level of Program Performance	E. Data Collection	F. Results	G. Plan For Improvement
What should the graduates of your program be able to do?	Where do you see evidence that the student can do these things?	How does your program evaluate student/graduate skills/abilities?	What is the expected level of student performance <u>for the program</u> ?	When will you collect the data needed to evaluate the performance of the program?	What are the results of the evaluation? NOTE: include student ratio with all results.	How will you use this information to improve the program?
2. Build, maintain, and troubleshoot to solve common information technology problems and implement secure workable solutions.	CPT 257 Operating Systems	All students will attempt and 60% pass lab portfolios.	60% will achieve a passing score on the Lab portfolio.	Spring 2019	Met. 16 out of the students 16 (100%) received a 70% or higher on the artifact chosen for this assessment. The lowest score for this artifact was 75% and the highest was 100%.	We did meet our goal of 60% pass rate. Continue to review the lab portfolios before the due date so make sure they are completed.

STUDENT LEARNING OUTCOMES FOR CAS.NET – 2019-2020

A. Program Student Learning Outcomes	B. What courses are PSLOs Assessed	C. Methods for Outcomes Assessment	D. Expected Level of Program Performance	E. Data Collection	F. Results	G. Plan For Improvement
What should the graduates of your program be able to do?	Where do you see evidence that the student can do these things?	How does your program evaluate student/graduate skills/abilities?	What is the expected level of student performance <u>for the program</u> ?	When will you collect the data needed to evaluate the performance of the program?	What are the results of the evaluation? NOTE: include student ratio with all results.	How will you use this information to improve the program
3. Students will be able to build and maintain secure networks.	IST 201 Cisco Internetworking Concepts	The students will demonstrate their abilities by successfully completing end of course skills exams.	70% of the students will receive 70% or higher on the exam.	Fall 2019	Benchmark not met. 9 of 23 students (39%) received a 70% or higher on the artifact chosen for this assessment. The lowest score for this artifact was 0% and the highest was 97%. Section 1 mean was 72.6%. Section 2 mean was 31.4%. Overall mean was 58%. Comment: There were two sections of this course. All except one of the students who were successful in this exam were in section 1. Both sections were taught by the same instructor using the same techniques and content. This exam result is similar to that for other exams throughout the semester. Section 1 usually did better than Section 2.	Benchmark not met. Upon review of the course content it was determined that too much material was included. Course has been updated and content overload has been addressed.

A. Program Student Learning Outcomes	B. What courses are PSLOs Assessed	C. Methods for Outcomes Assessment	D. Expected Level of Program Performance	E. Data Collection	F. Results	G. Plan For Improvement
What should the graduates of your program be able to do?	Where do you see evidence that the student can do these things?	How does your program evaluate student/graduate skills/abilities?	What is the expected level of student performance <u>for the program</u> ?	When will you collect the data needed to evaluate the performance of the program?	What are the results of the evaluation? NOTE: include student ratio with all results.	How will you use this information to improve the program
4. Demonstrate proficiency in maintaining end user devices to include personal computers, tablets, etc.	CPT 285 PC Hardware Concepts	The students will demonstrate their abilities by successfully completing the Chapter 1 test "Personal Computers- Maintaining and Troubleshooting".	All students will attempt and 70% pass this assessment.	Fall 2019	Not Met. 15 out of 24 (62.5%) made 70% or higher. The lowest score for this artifact was 40% and the highest was 88%. The cohort average for this event was 74%.	Benchmark not met. This was their first test. The faculty will be implementing a practice test to prepare them for the testing format to help improve the grades.

STUDENT LEARNING OUTCOMES FOR CAS.NET – 2020-2021

A. Program Student Learning Outcomes	B. What courses are PSLOs Assessed	C. Methods for Outcomes Assessment	D. Expected Level of Program Performance	E. Data Collection	F. Results	G. Plan For Improvement
What should the graduates of your program be able to do?	Where do you see evidence that the student can do these things?	How does your program evaluate student/graduate skills/abilities?	What is the expected level of student performance <u>for the program</u> ?	When will you collect the data needed to evaluate the performance of the program?	What are the results of the evaluation? NOTE: include student ratio with all results.	How will you use this information to improve the program
5. Design and build inter-networked environments incorporating routers and switches applying proper mathematical foundations in designing scalable TCP/IP networks using appropriate protocols to meet design requirements.	IST 201	The students will demonstrate their abilities by successfully completing quizzes in specific content areas of IST 201 related to protocols. (ITN Module 3: Protocols and Models).	70% of the students will receive 70% or higher on the quiz.	Fall 2020	This benchmark was not met. 11 of 24 students (46%) received a 70% or higher on the artifacts chosen for this assessment. The lowest score for this artifact was 34% and the highest was 100%. Mean was 68%.	The benchmark was not met. This semester was delivered online. This class is normally face-to-face with hands on labs. Labs and the skills exam were done virtually with simulated equipment. This may have been detrimental to student success. Fall 2021 will return face to face. If additional online is required, more attention to this content will be added. This chapter was especially difficult for the less motivated students as it involved memorizing items in order. New course content (since 2019) was utilized.

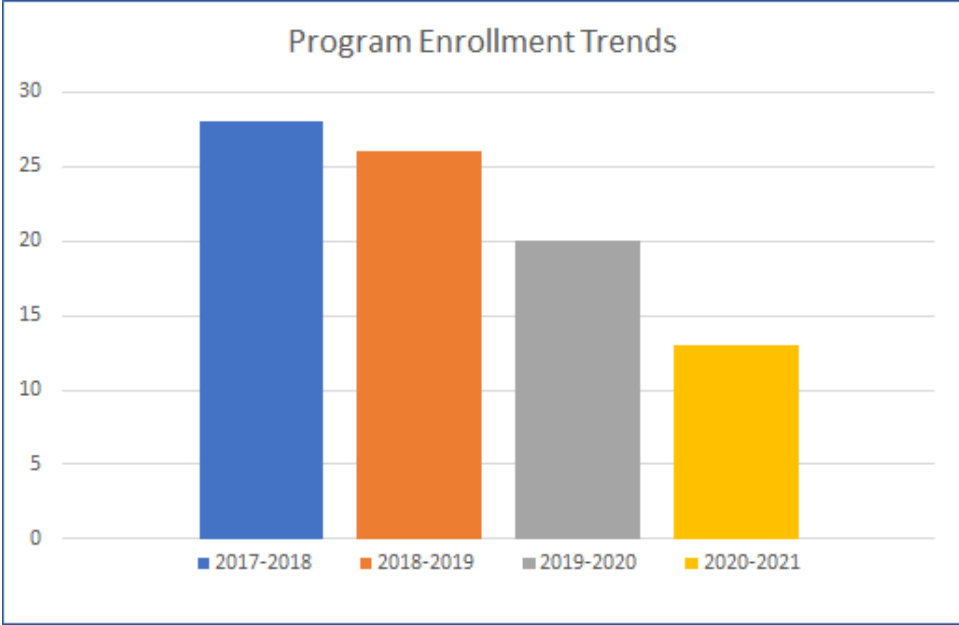
CONTINUOUS STUDENT IMPROVEMENT

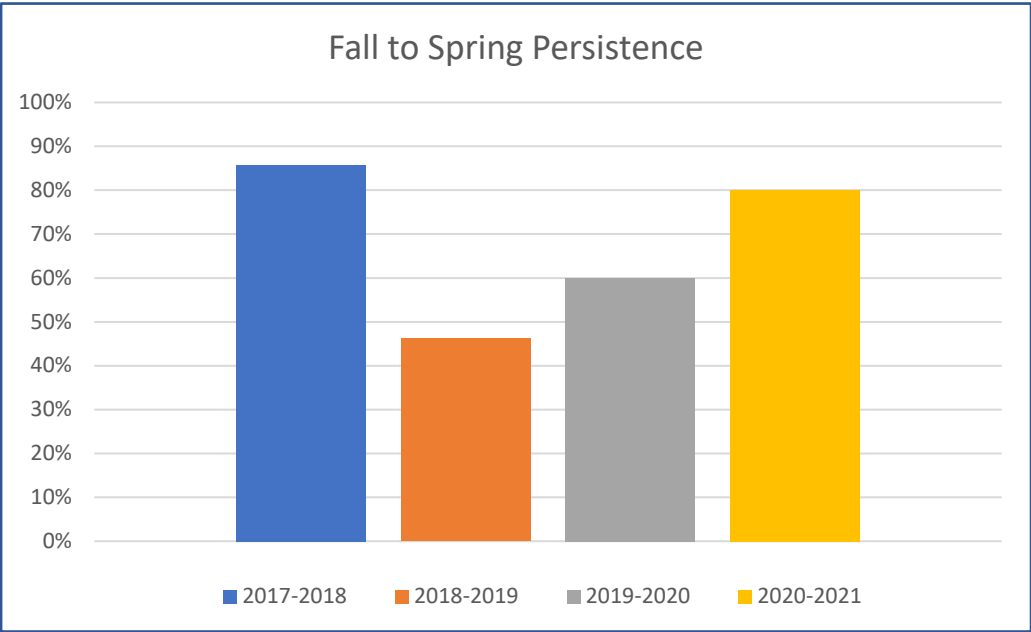
The PSLOs this cycle as compared to last cycle show improvement in many areas though direct comparison is difficult. This is primarily due to three changes. These changes were 1) in delivery due to COVID-19, 2) to the curriculum to make improvements based on IE findings and 3) due to technology updates and revisions to the content.

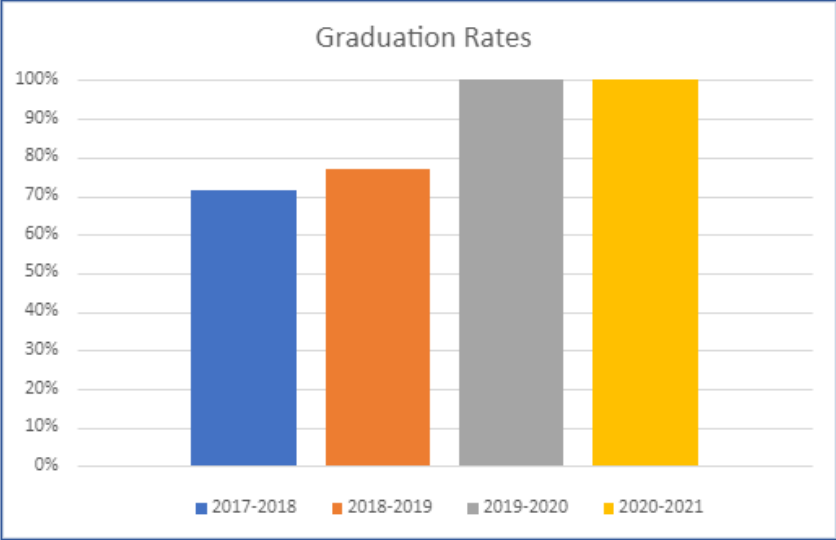
Skills exams continue to be challenging to students especially during COVID-19 as we transitioned to all online delivery and online testing with simulations.

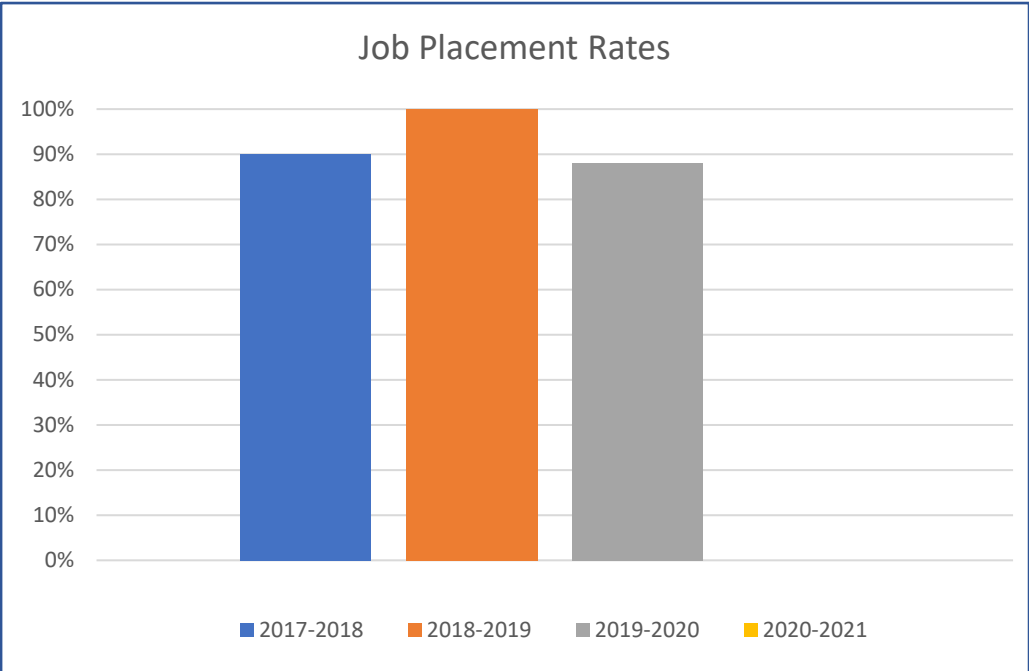
NSM faculty continues to maintain rigor in all aspects of our delivery of content and assessments of student learning.

PROGRAM VITAL STATISTICS

Indicator	Trend Analysis	Action Plans										
<div style="text-align: center;"> <p>Program Enrollment Trends</p>  <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <caption>Program Enrollment Trends Data</caption> <thead> <tr> <th>Year</th> <th>Enrollment</th> </tr> </thead> <tbody> <tr> <td>2017-2018</td> <td>28</td> </tr> <tr> <td>2018-2019</td> <td>26</td> </tr> <tr> <td>2019-2020</td> <td>20</td> </tr> <tr> <td>2020-2021</td> <td>13</td> </tr> </tbody> </table> </div>	Year	Enrollment	2017-2018	28	2018-2019	26	2019-2020	20	2020-2021	13	<p>Enrollments in this program has been declining over the past 4 years. This is probably due to the faculty encouraging the students to remain for the degree program. Also, this certificate is good for the students who need to become employed quickly.</p>	<p>This certificate is often claimed for graduation by students who have declared NSM degree. We need to be more proactive in verifying student's intentions.</p>
Year	Enrollment											
2017-2018	28											
2018-2019	26											
2019-2020	20											
2020-2021	13											

Indicator	Trend Analysis	Action Plans										
<p style="text-align: center;">Fall to Spring Persistence</p>  <table border="1" data-bbox="128 183 1152 810"> <caption>Fall to Spring Persistence Data</caption> <thead> <tr> <th>Year</th> <th>Persistence Percentage</th> </tr> </thead> <tbody> <tr> <td>2017-2018</td> <td>85%</td> </tr> <tr> <td>2018-2019</td> <td>45%</td> </tr> <tr> <td>2019-2020</td> <td>60%</td> </tr> <tr> <td>2020-2021</td> <td>80%</td> </tr> </tbody> </table>	Year	Persistence Percentage	2017-2018	85%	2018-2019	45%	2019-2020	60%	2020-2021	80%	<p>The persistence in this certificate has been increasing over the past 3 years. Faculty consider the 2018-2019 to be anomaly. Students are being directed toward the certificate or the NSM degree depending on their desired outcomes. As they make the correct choice they have tended to remain.</p>	<p>Continue to coach students to choose degree or certificate that matches their medium- and long-term goals.</p>
Year	Persistence Percentage											
2017-2018	85%											
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2020-2021	80%											

Indicator	Trend Analysis	Action Plans										
<p style="text-align: center;">Graduation Rates</p>  <table border="1" data-bbox="226 162 1056 698"> <caption>Graduation Rates Data</caption> <thead> <tr> <th>Year</th> <th>Graduation Rate</th> </tr> </thead> <tbody> <tr> <td>2017-2018</td> <td>71%</td> </tr> <tr> <td>2018-2019</td> <td>77%</td> </tr> <tr> <td>2019-2020</td> <td>100%</td> </tr> <tr> <td>2020-2021</td> <td>100%</td> </tr> </tbody> </table>	Year	Graduation Rate	2017-2018	71%	2018-2019	77%	2019-2020	100%	2020-2021	100%	<p>The trend is toward 100% graduation rate as students are encourage to declare appropriate majors for their abilities and goals. The students in our NSM Degree can automatically earn this certificate and that is why the high percentage graduation rates.</p>	<p>Continue to coach students to choose degree or certificate that matches their medium- and long-term goals.</p>
Year	Graduation Rate											
2017-2018	71%											
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Indicator	Trend Analysis	Action Plans										
<p style="text-align: center;">Job Placement Rates</p>  <table border="1" data-bbox="128 191 1150 857"> <caption>Job Placement Rates Data</caption> <thead> <tr> <th>Year</th> <th>Rate (%)</th> </tr> </thead> <tbody> <tr> <td>2017-2018</td> <td>90%</td> </tr> <tr> <td>2018-2019</td> <td>100%</td> </tr> <tr> <td>2019-2020</td> <td>88%</td> </tr> <tr> <td>2020-2021</td> <td>-</td> </tr> </tbody> </table>	Year	Rate (%)	2017-2018	90%	2018-2019	100%	2019-2020	88%	2020-2021	-	<p>The trend over the past three years has remained very favorable for the students becoming employed. The job placement rates for the Fundamentals of Networking Certificate are high due to the fact that our graduates are very marketable in our area.</p>	<p>The department will continue to be in communication with industry through Advisory and DACUM committees so we can keep providing graduates into the job market pipeline.</p>
Year	Rate (%)											
2017-2018	90%											
2018-2019	100%											
2019-2020	88%											
2020-2021	-											

*Values and formulas used to generate program vital statistics and charts provided by Gary Ancheta.