

CENTRAL NEW MEXICO COMMUNITY COLLEGE
ASSESSMENT REPORT
Due to SAAC by October 15

PART 1: CONTACT & PROGRAM IDENTIFICATION

Report Year and Contact Information:			
2014-2015 Academic Year	Robert Hennigan Contact Person	rhennigan@cnm.edu Email	224-3920 Phone Number

Subject of this Assessment Report:		
Program: Network Administration <input type="checkbox"/> Certificate <input type="checkbox"/> AA <input type="checkbox"/> AS <input checked="" type="checkbox"/> AAS	Gen Ed Area: _____ Applicable to: <input type="checkbox"/> AA/AS <input type="checkbox"/> AAS	Discipline Area: _____

PART 2: EVIDENCE OF OVERALL PROGRAM EFFECTIVENESS

Summary of Program Successes:
<p>For the Fall 2014 – Spring 2015 terms, there were thirty one (31) students who completed the Capstone project for the Network Administration concentration. Of those students, the average score on their Capstone projects was 74.62%. This score is slightly lower than in the past, which might suggest that the introduction of distance learning options and virtual labs is not working as well as we hoped, or it might simply be an exception to past trends. The scores for the Fall 2014 cohort were much higher and consistent with past result (83.52%) versus 63.8% for the Spring cohort.</p>

Description and Evaluation of Recent Changes Made in Support of Student Learning:
<p>Hybrid and distance learning classes might be to blame for the slight reduction in the scores of these Capstone students. We continue to evaluate the efficacy of the shorter duration classes and the use of more hybrid scenarios. It probably is still too early to say what is to blame for the poorer performance of these cohorts.</p>

PART 3: REPORT ON RECENT ASSESSMENT OF STUDENT LEARNING

Student Learning Outcome(s) Assessed: <i>To add rows: right –click in cell below and select “Insert,” “Insert Rows Above”</i>	Classes/Cohorts Assessed:
Student can use Network Protocol Models to explain communication between devices on a data network.	CIS 1425, 2420.2423,2425, 2427 and Capstone
Student can cable and create networks in accordance with stated objectives	Same as above
Student can create a logical diagram and translate it to a physical implementation on a network.	Same as above
Student can design a network with mathematical literacy and effectively implement the design to create a functioning network.	Same as above
Student can create a LAN environment implementing VLANs and wireless devices.	Same as above
Student can create WAN environment implementing appropriate protocols for current networking technologies.	Same as above
Student can implement practical network security applications on the network.	Same as above
Student can problem solve and troubleshoot data networks.	Same as above

Measurement Tool(s) Used: <i>To add rows: right –click in cell below and select “Insert,” “Insert Rows Above”</i>	<i>Enter X's for type of tool</i>				Initial Achievement Target or Expectation:
	Internal	External	Direct	Indirect	
A comprehensive electronic pre-certification exam				x	Students are expected to achieve a passing score of 71.
Performance based projects (skills exams) used in classes CIS 1425, 2420,2423,2425,2427, as well as the Capstone project.	x		x		The Network Administration exit competencies are evaluated using a Rubrics with a scale of 4=excellent, 3=good, 2=fair, and 1=poor. We believe a score of 3+ for 75% of our students is an attainable goal.

Assessment Findings:

Outcomes 1-8: A total of 31 Network Administration students completed the Network Administration assessment activities in the Capstone course in Fall, 2014 and Spring 2015. The results are as follows:

	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5	COMP 6	COMP 7	COMP 8
SCORE	Protocols	Design	Document	Net Math	LAN VLANs	WANs	Security	Trouble Shooting
4	22	5	2	4	5	7	7	7
3.5	5	10	27	7	8	10	11	14
3	2	10	2	12	10	10	9	4
2.5	1	6	0	5	6	2	1	3
2.0	1	0	0	3	2	1	3	3
1.0	0	0	0	0	0	0	0	0

Using the Achievement Target of 3+ criteria for 75% of our students, the raw data is:

	COMP 1	COMP 2	COMP 3	COMP 4	COMP 5	COMP 6	COMP 7	COMP 8
SCORE	Protocols	Design	Document	Net Math	LAN VLANs	WANs	Security	Trouble Shooting
3+	29	25	31	23	23	27	27	25
<3	2	6	0	8	8	3	4	6
Meet Target3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

A total of 139 students took the Linux Skills Exam, this encompasses 9 sections, 3 sections of Fall 2014 and 6 sections of Spring 2015.

SUCCESS SCORE	RAW TOTAL (OUT OF 139)	%
EXCELLENT 90-100 4	63	45
Good 80-89 3	26	19
FAIR 70-79 2	13	9

POOR 69 OR LESS	37	27
TOTAL SCORES 3+	99	64

Meet target of 80%, score 3 or 4 for 75% of our students? No

Analysis and Interpretation of Assessment Findings:
 The program is achieving the desired results. The job market is strong in this field. Additional entry level class was required this fall semester.

Action Plan in Support of Student Learning:
 Keep an eye on the trends which might indicate that DL and Hybrid classes are not recommended for this concentration.

Recommendations, Proposals, and/or Funding Requests:
 N/A

PART 4: EMBEDDED OUTCOMES

Critical Thinking and Life Skills/Teamwork Development within Programs:

- a) Please describe how Critical Thinking assessment is embedded within your program assessment.
- b) Please describe how Life Skills/Teamwork assessment is embedded within your program assessment.

a) By its nature, Network Administration involves critical thinking. Class homework assignments, class hands on labs, and skills projects all incorporate critical thinking as the beginning point to successful completion.

b) Student homework assignments, skills projects, and all labs are evaluated based on timeliness, quality, and accuracy of work. Students must demonstrate that the networks they build can reach external locations on the Internet. Late work is discouraged.

PART 5: ASSESSMENT CYCLE PLAN (Copy and paste from original plan if unchanged)

Cycle Years:	Plan Description:
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Student Learning Outcomes:	When Measured:	Where Measured:	How Measured:
1. Use network protocol models to explain the layers of communications in data networks.	Outcomes 1-8 CIS Network Administration students were assessed in their final semester via the CIS 2999 Capstone course.	Outcomes 1-8 CIS Network Administration students were assessed in their final semester via the CIS 2999 Capstone course.	Students were assessed via two different methods in their Capstone Project: 1) The student was assigned a skills test in which they had to simulate a company with complex network requirements. The student had to design the network, select the appropriate devices, connect and configure them, and demonstrate to the instructor that it functioned correctly. DIRECT methods were used to assess student performance. (1-8) 2) The second part of the Capstone project required the student to complete a comprehensive written exam that fairly measures their comprehension and preparedness to complete an industry recognized certification exam. EXTERNAL methods were used to assess student performance
2. Employ basic cabling and network designs to connect devices in accordance with stated objectives.	Same as 1	Same as 1	Same as 1
3. Develop a logical diagram and translate it to a physical implementation.	Same as 1	Same as 1	Same as 1
4. Demonstrate network mathematical literacy both in theory and application as it applies to networks	Same as 1	Same as 1	Same as 1
5. Design, address, construct and test LANs containing multiple VLANs as well as wireless devices.	Same as 1	Same as 1	Same as 1

6. Design, address, construct and test WAN topologies selecting from current networking technologies	Same as 1	Same as 1	Same as 1
7. Demonstrate the practical application of skills needed to design, implement, and support network security.	Same as 1	Same as 1	Same as 1
8. Demonstrate problem solving ability with data networks.	Same as 1	Same as 1	Same as 1