

CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT

Due to the Student Academic Assessment Committee by October 15



PART 1: REPORT INFORMATION

Report Year and Contact Information			
<u>2017-2018</u> Academic Year	<u>Nathan Saline</u> Contact Person	<u>nsaline@cnm.edu</u> CNM Email	<u>50941</u> CNM Office Extension

Subject of this Report
BIT--PDCYBER_CERT--CIS Cybersecurity Post Degree Certificate

PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

Program/Area Highlights and Successes
<p>(Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx (access restricted to CNM employees) and other reports at https://www.cnm.edu/depts/opie.)</p> <p>The cyber security students were assessed on their completion of the Capstone project, which consisted of their ability to complete the hands-on skills based project. For the summer 2018 - spring 2018 terms, there were 2 students who completed the Capstone project for the cyber security concentration. Of those students, the average score on their Capstone projects was 84%.</p>

Changes Implemented During the Past Year in Support of Student Learning
Since this was the first year that we need to assess students the thing that was added ways the selection of the capstone project.

PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING

Assessment Method	Type of Assessment Tool	Population or Course(s) Assessed	Graduate Learning Outcome(s) Assessed	Mastery Level (E.g., "Minimum score of 3 on a rubric scaled 0-4" or "Minimum score of 75%")	Targeted % Achieving Mastery	Outcome
Capstone Project	Direct & Internal	CIS 2999 Sum and Spr 2018	Explain the traditional ethical frameworks that can be used to analyse the moral dilemmas and social problems that arise in cyberspace	Minimum score of 75%	82%	Target met
Capstone Project	Direct & Internal	CIS 2999 Sum and Spr 2018	Identify the components of an intrusion detection system and explain the steps of intrusion detection	Minimum score of 75%	79%	Target met
Capstone Project	Direct & Internal	CIS 2999 Sum and Spr 2018	Describe a layered approach to network defense and explain the functionality of key network defense systems	Minimum score of 75%	80%	Target met
Capstone Project	Direct & External	CIS 2999 Sum and Spr 2018	Describe the reasons for using offensive network defenses and explain the key techniques used by penetration testers	Minimum score of 75%	92%	Target met
Capstone Project	Direct & External	CIS 2999 Sum and Spr 2018	Describe the basic characteristics of digital evidence and explain the key techniques used to gather and analyze digital forensic evidence	Minimum score of 75%	79%	Target met
Capstone Project	Direct & External	CIS 2999 Sum and Spr 2018	Describe the basic rules of evidence and explain the necessity for maintaining evidential chain of custody	Minimum score of 75%	83%	Target met

Capstone Project	Direct & External	CIS 2999 Sum and Spr 2018	Explain the importance of the CIA triad and how cyber professionals maintain each tenant to ensure business continuity	Minimum score of 75%	84%	Target met
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Summary of Assessment Findings
 We found that students are performing beyond the minimum level we set.

Interpretation of Assessment Findings
 Students are doing well on the assessments but we feel that we may need to evaluate the capstone project to see if it is the right measure for determining student performances.

Action Plan in Support of Student Learning (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)
 We feel that there are many different options open to us for assessment. We are going to look at some of those to determine the best fit for our program.

Please select all of the following that characterize the types of changes described in the above action plan:

- Assessment criteria revision
- Budgetary reallocation
- Curricular Revision
- Assessment methodology revision
- Change in teaching approach
- Faculty training/development
- Assignment revision
- Course content revision
- Process revision

Recommendations, Proposals, and/or Funding Requests	Budget Needed
We are looking at strengthening our assessment tools by including some of the labs and writing assignments to the assessment process.	

PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN (including any revisions) – **OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

Years of Full Cycle	Next Year's Assessment Focus (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
2014-2019	We are looking at strengthening our assessment tools by including some of the labs and writing assignments to the assessment process.

Graduate Learning Outcomes to Be Assessed	Years in which Assessment Is Planned	Population/Courses to Be Assessed	Planned Assessment Approach
Explain the traditional ethical frameworks that can be used to analyse the moral dilemmas and social problems that arise in cyberspace.	2018-2019	CIS 1853	Exam(s), and or writing assignment(s) and or capstone project
Identify the components of an intrusion detection system and explain the steps of intrusion detection	2018-2019	CIS 2670	Exam(s), and or writing assignment(s) and or capstone project
Describe a layered approach to network defense and explain the functionality of key network defense systems.	2019-2020	CIS 2853	Exam(s), and or writing assignment(s) and or capstone project
Describe the reasons for using offensive network defenses and explain the key techniques used by penetration testers	2019-2020	CIS 2857	Exam(s), and or writing assignment(s) and or capstone project
Describe the basic characteristics of digital evidence and explain the key techniques used to gather and analyze digital forensic evidence	2019-2020	CIS 2860	Exam(s), and or writing assignment(s) and or capstone project
Describe the basic rules of evidence and explain the necessity for maintaining evidential chain of custody.	2019-2020	CIS 2860	Exam(s), and or writing assignment(s) and or capstone project
Explain the importance of the CIA triad and how cyber professionals maintain each tenant to ensure business continuity	2018-2019	CIS 1853	Exam(s), and or writing assignment(s) and or capstone project