

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 |
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| BIT--CIS_AAS--CIS Cloud Technology Concentration |

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 Cloud Technology students were assessed on their completion of the Capstone project, which consisted of their ability to complete the hands-on skills based labs and their knowledge of theoretical concepts assessed with a written practice industry certification exam. For the fall 2017 - spring 2018 terms, there were 3 students who completed the Capstone project for the Cloud Technology concentration. Of those students, the average score on their Capstone projects was 98%.</p> |

| Changes Implemented During the Past Year in Support of Student Learning |
|---|
| Evaluate an adjustment in curriculum for and CIS2820 to improve the development of skills and knowledge to achieve a higher level. Improve reporting of the capstone project to better assess the skills and knowledge. In doing so we would expect the scores to decline in the next evaluation cycle. |

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 1810 Fall 2017 | Demonstrate an understanding logical and physical components of a storage infrastructure | Minimum score of 75% | 100% | Target met |
| Capstone Project | Direct & Internal | CIS 1810 Fall 2017 | Define backup, recovery, disaster recovery, business continuity, and replication | Minimum score of 75% | 100% | Target met |
| Capstone Project | Direct & Internal | CIS 1810 Fall 2017 | Demonstrate an understanding of information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized, and cloud environments | Minimum score of 75% | 100% | Target met |
| Capstone Project | Direct & External | CIS 2820 Fall 2017 | Install and configure a hypervisor operating system. | Minimum score of 75% | 100% | Target met |
| Capstone Project | Direct & External | CIS 2820 Fall 2017 | Install and configure a centralized management server for managing the virtual infrastructure. Deploy, manage, and migrate virtual machines. | Minimum score of 75% | 97% | Target met |
| Capstone Project | Direct & External | CIS 2820 Fall 2017 | Deploy, manage, and migrate virtual machines. | Minimum score of 75% | 100% | Target met |

| | | | | | | |
|------------------|-------------------|--------------------|--|----------------------|------|------------|
| Capstone Project | Direct & External | CIS 2820 Fall 2017 | Create a template in VMware vCenter Server™ and deploy a virtual machine from the template | Minimum score of 75% | 100% | Target met |
|------------------|-------------------|--------------------|--|----------------------|------|------------|

Summary of Assessment Findings

We found that students are performing well beyond the minimum level we set.

Interpretation of Assessment Findings

We need to either increase the complexity or use a more granular student performances indicator.

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 the project captures the right material and that it is at the right level of complexity. We are looking for a more precise way of measuring student's performance in this project.

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

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

| Recommendations, Proposals, and/or Funding Requests | Budget Needed |
|---|---------------|
| I am looking at strengthening that reporting part of the capstone and including some of the labs as part of 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.) |
|----------------------------|---|
| 2013-2018 | At this point, we are going to continue with the assessment tools that we are using. We are just going to work on strengthening the reporting aspect. |

| Graduate Learning Outcomes to Be Assessed | Years in which Assessment Is Planned | Population/Courses to Be Assessed | Planned Assessment Approach |
|--|---|--|------------------------------------|
| Demonstrate an understanding logical and physical components of a storage infrastructure | 2018-2019 | CIS 1810 | Labs |
| Define backup, recovery, disaster recovery, business continuity, and replication | 2018-2019 | CIS 1810 | Labs |
| Demonstrate an understanding of information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized, and cloud environments. | 2018-2019 | CIS 1810 | Labs |
| Install and configure a hypervisor operating system. | 2018-2019 | CIS 2810 | Capstone Project |
| Install and configure a centralized management server for managing the virtual infrastructure. | 2018-2019 | CIS 2810 | Capstone Project |
| Deploy, manage, and migrate virtual machines. | 2018-2019 | CIS 2810 | Capstone Project |
| Create a template in VMware vCenter Server™ and deploy a virtual machine from the template. | 2018-2019 | CIS 2810 | Capstone Project |