

# 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>Erica Voges</u> Contact Person	<u>evoges</u> CNM Email	<u>X52680</u> CNM Office Extension

  

Subject of this Report
MSE--PHYSICS_AS--Physics Degree

## 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 <a href="https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx">https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx</a> (access restricted to CNM employees) and other reports at <a href="https://www.cnm.edu/depts/opie">https://www.cnm.edu/depts/opie</a>.)</p> <p>We have recently rewritten our Physics program SLOs to better reflect the skills we would like our students to have upon exiting our program. We have generated a new cycle plan and new assessment questions to better assess our program. We have also recently gained two new full-time faculty members, which will allow us to distribute the workload associated with assessment and keep to our assessment timelines. We have a strong physics curriculum that emphasizes problem solving, and we look forward to demonstrating that on future assessment reports.</p>

  

Changes Implemented During the Past Year in Support of Student Learning

**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
Click or tap here to enter text.	Choose an item.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Choose an item.	Choose an item.

Summary of Assessment Findings
New SLOs were adopted with a cycle plan that begins Fall 2018. There are no assessment findings to report at this time.

Interpretation of Assessment Findings

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.)

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

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|---|--|--|
| <input type="checkbox"/> Assessment criteria revision | <input type="checkbox"/> Assessment methodology revision | <input type="checkbox"/> Assignment revision     |
| <input type="checkbox"/> Budgetary reallocation       | <input type="checkbox"/> Change in teaching approach     | <input type="checkbox"/> Course content revision |
| <input type="checkbox"/> Curricular Revision          | <input type="checkbox"/> Faculty training/development    | <input type="checkbox"/> Process revision        |

Recommendations, Proposals, and/or Funding Requests	Budget Needed

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

<b>Years of Full Cycle</b>	<b>Next Year's Assessment Focus</b> (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
Fall 2018-Spring 2022	The next planned assessments will provide information regarding our students' mastery of fundamental physics problem solving skills.

<b>Graduate Learning Outcomes to Be Assessed</b>	<b>Years in which Assessment Is Planned</b>	<b>Population/Courses to Be Assessed</b>	<b>Planned Assessment Approach</b>
Construct a free body diagram, apply Newton's Laws, solve the equations, describe the relationships between physical quantities in the equations, and conduct dimensional analysis.	Fall 2018 – Spring 2020	Physics 1710	Final exam question
Use the principles of work, conservation of energy and/or conservation of momentum to solve a Newtonian mechanics problem, describe the relationships between physical quantities in the equations, and conduct dimensional analysis.	Fall 2018 – Spring 2020, Fall 2020 – Spring 2022	Physics 1710, Physics 1810	Final exam question
Use the first and/or second law of thermodynamics to interpret heat, work and internal energy, describe relationships between physical quantities in the equations, and conduct dimensional analysis.	Fall 2018 – Spring 2020	Physics 1810	Final exam question
Use Ohm's Law and Kirchoff's Laws to find currents in circuit branches and voltage drops across circuit elements.	Fall 2020 – Spring 2022	Physics 1810	Final exam question
Collaborate respectfully and effectively with peer group using basic laboratory equipment safely to conduct experiments, collect data, and/or analyze data via graphs/equations.	Spring 2019 – Fall 2021	Physics 1792, Physics 1892	Instructor laboratory observation

Use the principles of ray optics, wave optics, or quantum mechanics to solve an equation and conduct dimensional analysis.	Spring 2019 – Fall 2021	Physics 2710	Final exam question
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