

**Course Assessment Report**  
**Washtenaw Community College**

Discipline	Course Number	Title
Physics	105	PHY 105 01/16/2020- Conceptual Physics
Division	Department	Faculty Preparer
Math, Science and Engineering Tech	Physical Sciences	Robert Hagood
Date of Last Filed Assessment Report		

**I. Review previous assessment reports submitted for this course and provide the following information.**

1. Was this course previously assessed and if so, when?

No

2. Briefly describe the results of previous assessment report(s).

3.

4. Briefly describe the Action Plan/Intended Changes from the previous report(s), when and how changes were implemented.

5.

**II. Assessment Results per Student Learning Outcome**

Outcome 1: Identify and recognize physical principles related to Newtonian mechanics, heat, vibration and waves, electromagnetism and light.

- Assessment Plan
  - Assessment Tool: Departmental final exam
  - Assessment Date: Winter 2012
  - Course section(s)/other population: all
  - Number students to be assessed: all
  - How the assessment will be scored: Departmentally-developed rubric
  - Standard of success to be used for this assessment: 70% of the students completing the assessment will receive a score of 70% or greater.

- Who will score and analyze the data: Department

1. Indicate the Semester(s) and year(s) assessment data were collected for this report.

Fall (indicate years below)	Winter (indicate years below)	SP/SU (indicate years below)
2019		

2. Provide assessment sample size data in the table below.

# of students enrolled	# of students assessed
31	18

3. If the number of students assessed differs from the number of students enrolled, please explain why all enrolled students were not assessed, e.g. absence, withdrawal, or did not complete activity.

There were 30 students registered for the course, but at the time of the assessment, the end of the Fall 2019 semester, only 18 students were in the classes as they were assessed. These were all the students who were still active in the class, the others had stopped being active in the class.

4. Describe how students from all populations (day students on campus, DL, MM, evening, extension center sites, etc.) were included in the assessment based on your selection criteria.

All students in all sections of PHY 105 for the Fall 2019 semester were given the assessment test.

5. Describe the process used to assess this outcome. Include a brief description of this tool and how it was scored.

All students were given a departmental exam at the end of the semester. The exam was 10 multiple-choice questions that had the students “Identify and recognize physical principles related to Newtonian mechanics, heat, vibration and waves, electromagnetism and light.” This gave the department a chance to see if the course was providing the students a chance to identify and recognize the concepts. Each question was scored as either a 1 – for right answers or a 0 – for incorrect answers. The test was score by the Lead Instructor for the course.

6. Briefly describe assessment results based on data collected for this outcome and tool during the course assessment. Discuss the extent to which students achieved this learning outcome and indicate whether the standard of success was met for this outcome and tool.

Met Standard of Success: Yes

Overall, looking at the average for all the students and the full assessment exam, the students were able to demonstrate successfully that they did achieve the standard defined by the Master Syllabus. Each individual area of the students learning outcome was also successfully reached.

Newtonian Mechanics – 87 % - Standard Met

Heat – 100 % - Standard Met

Vibrations and Waves – 100 % - Standard Met

Electromagnetism and Light – 100 % - Standard Met

7. Based on your interpretation of the assessment results, describe the areas of strength in student achievement of this learning outcome.

The students were able to display, across the board, that they did learn how to identify and recognize the concepts of the learning outcome. Each concept was met with an average score well beyond the standard of 70% completion.

8. Based on your analysis of student performance, discuss the areas in which student achievement of this learning outcome could be improved. If student met standard of success, you may wish to identify your plans for continuous improvement.

The process which is being used to work with the students seems to be successful for the students. The department needs to make sure that as technology and information changes, the department needs to stay fluid with how the material is presented to the students, finding new ways to present material to the students to continue helping the students learn and reach the standards of success that was displayed with this assessment.

### III. Course Summary and Intended Changes Based on Assessment Results

1. Based on the previous report's Intended Change(s) identified in Section I above, please discuss how effective the changes were in improving student learning.

There was no previous report.

2. Describe your overall impression of how this course is meeting the needs of students. Did the assessment process bring to light anything about student achievement of learning outcomes that surprised you?

No, there was no surprise, the students are asked to identify and recognize the concepts of physics, and how the class is being currently presented seems to be reaching the desired goals.

- Describe when and how this information, including the action plan, was or will be shared with Departmental Faculty.

The full report will be shared with all departmental faculty members at the January 2020 department meeting.

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Intended Change(s)

Intended Change	Description of the change	Rationale	Implementation Date
Assessment Tool	The assessment will be given to all students who are taking the course (Fall and Winter semester) for a two-year period.	The assessment tool did seem to work fine, but we were limited with the amount of data that was collected. Since the course basically offers one section a semester, all students who are taking the course will be assessed each semester for a two-year period. This will then allow enough data to be gathered to give a more well round assessment of the course.	2021

- Is there anything that you would like to mention that was not already captured?

6.

### III. Attached Files

[Assessment Exam](#)  
[Assessment Data](#)

**Faculty/Preparer:** Robert Hagood **Date:** 01/22/2020  
**Department Chair:** Suzanne Albach **Date:** 01/22/2020  
**Dean:** Victor Vega **Date:** 01/23/2020

**Assessment Committee Chair:** Shawn Deron    **Date:** 07/15/2020