**Course Prefix, Number, and Title: PHYS 152, General Physics II**

**Section Number(s): 1001, 1002**

**Department: Science**

**Instructor: Milinda Wasala**

**Academic Year: 2020/2021**

**Semester: Spring 21**

**Is this a GenEd class? Yes**

**Complete and submit your assessment report electronically to your department chair. As needed, please attach supporting documents and/or a narrative description of the assessment activities. You may use as many or as few outcomes as necessary.**

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| **Class/Course Outcomes** | **Assessment Measures** | **Assessment Results** | **Outcome Results Analysis** |
| In the boxes below, summarize the outcomes assessed in your class or course during the last year*.* If this is a GenEd class, include the appropriate GenEd objectives. | In the boxes below, summarize the methods used to assess course outcomes during the last year. Include the criterion you’ll use to judge whether or not students have achieved the expected outcome. | In the boxes below, summarize the results of your assessment activities during the last year. Include your judgement as to whether or not the criterion for student achievement has been met. | In the boxes below, please reflect on this outcome’s results and summarize how you plan to use the results to improve student learning. |
| Outcome #1:  Students will be able to understand and solve problems related to Electric charges, forces and fields, Electric potential & electric potentials energy, Electric current and direct current circuits, Magnetism. | Assessment Measure:  Ch 19-21 Homework  Exam 1  Final Exam  Related Labs  Criterion for achievement:  60% of students earned 80% or above in homework  60% of students earned 60% or above in Exam 1  60% of students earned 60% or above in Final Exam | Results:  100% of students had an aggregate score of 90% or more on Ch19-21 homework.  85% of students had an aggregate score of 60% or more on Exam 1.  87.5% of students had an aggregate score of 60% or more on Final Exam.  Criterion Met: Yes | 1. Results Analysis:  This part of the course materials could have difficult/intense homework problems. But the selected questions are basic/intermediate level.  2. Action Plan:  Include few more intermediate level homework problems. |
| Outcome #2:  Students will be able to understand and solve problems related to Magnetic flux and Faraday's law of induction, Alternating Current circuits, Electromagnetic waves, Geometrical optics, optical instruments. | Assessment Measure:  Ch 22-24 Homework  Exam 2  Final Exam  Related Labs  Criterion for achievement:  60% of students earned 80% or above in homework  60% of students earned 60% or above in Exam 2  60% of students earned 60% or above in Final Exam | Results:  100% of students had an aggregate score of 90% or more on Ch22-24 homework.  95% of students had an aggregate score of 60% or more on Exam 2.  87.5% of students had an aggregate score of 60% or more on Final Exam.  Criterion Met: Yes | 1. Results Analysis:  This part of the course materials could have difficult/intense homework problems. But the selected questions are basic/intermediate level.  2. Action Plan:  Include few more intermediate level homework problems. |
| Outcome #3:  Students will be able to understand and solve problems related to Physical optics, Relativity, Quantum Physics, Atomic Physics, Nuclear Physics and Nuclear radiation. | Assessment Measure:  Ch 25-28 Homework  Exam 3  Final Exam  Related Labs  Criterion for achievement:  60% of students earned 80% or above in homework  60% of students earned 60% or above in Exam 3  60% of students earned 60% or above in Final Exam | Results:  100% of students had an aggregate score of 95% or more on Ch25-28 homework.  100% of students had an aggregate score of 60% or more on Exam 3.  87.5% of students had an aggregate score of 60% or more on Final Exam.  Criterion Met: Yes | 1. Results Analysis:  This part of the course materials could have difficult/intense homework problems. But the selected questions are basic level.  2. Action Plan:  Include few more intermediate level homework problems. |
| Outcome #4:  **GEN ED, Scientific Reasoning-**  Demonstrate an understanding of the scientific methodologies used in various disciplines | Assessment Measure:  Applicable questions on exams throughout the course and related labs  Criterion for achievement:  60% of students with an aggregate score of 70% or better on applicable exam questions | Results:  100% of students had an aggregate score of 70% or more on applicable exam questions  Criterion Met: Yes | 1. Results Analysis:  Expected result  2. Action Plan: |
| Outcome #5:  **GEN ED, Scientific Reasoning-**  Effectively interpret and apply scientific principles and concepts | Assessment Measure:  Applicable questions on exams throughout the course and related labs  Criterion for achievement:  60% of students with an aggregate score of 70% or better on applicable exam questions | Results:  100% of students had an aggregate score of 70% or more on applicable exam questions  Criterion Met: Yes | 1. Results Analysis:  Expected result  2. Action Plan: |
| Outcome #6:  **GEN ED, Scientific Reasoning-**  Apply scientific reasoning to the evaluation, analysis, or interpretation of models and theories developed in the sciences | Assessment Measure:  Applicable questions on exams throughout the course and related labs  Criterion for achievement:  60% of students with an aggregate score of 70% or better on applicable exam questions | Results:  100% of students had an aggregate score of 70% or more on applicable exam questions  Criterion Met: Yes | 1. Results Analysis:  Expected result  2. Action Plan: |
| Outcome #7:  **GEN ED, Scientific Data Interpretation:**  Effectively apply mathematical principles and quantitative  methods to collect and analyze scientific data | Assessment Measure:  Applicable questions on exams throughout the course and related labs  Criterion for achievement:  60% of students with an aggregate score of 70% or better on applicable exam questions | Results:  100% of students had an aggregate score of 70% or more on applicable exam questions  Criterion Met: Yes | 1. Results Analysis:  Expected result  2. Action Plan: |
| Outcome #8:  **GEN ED, Scientific Data Interpretation:**  Utilize the scientific method to arrive at informed conclusions | Assessment Measure:  Applicable questions on exams throughout the course and related labs  Criterion for achievement:  60% of students with an aggregate score of 70% or better on applicable exam questions | Results:  100% of students had an aggregate score of 70% or more on applicable exam questions  Criterion Met: Yes | 1. Results Analysis:  Expected result  Follow up:  This is the second part of the yearlong General Physics course. This also the first time I have taught this course as a completely online course. Second part of this course is comparatively harder than the first semester. Therefore, I have selected the basic/intermediate level questions for homework and exams. Students’ performance was improved than first semester (General Physics I). I believe improvement mainly due to; 1. More than 90% of the students were used to the teaching style and course structure from the beginning, since this was the second semester for them. 2. students were aware of the difficulty level of the course, and 3. Student group was enthusiastic about the subject matters.  Due to the nature of the course delivery method, all the labs were completely online labs. But I believe lack of hands-on laboratory experience might be disadvantages to the students. Therefore, need to look for alternative laboratory work (with hands-on laboratory activities) for the completely online course. Further, I would discuss more in class problems as well as encourage students to use the tutoring facility. |

**Notes:**

I have reviewed this report:

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Department Chair Dean

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Vice President of Academic Affairs and Student Services

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