

# Assessment: Course Four Column

## Courses (SCI) - Physics

### PHYS 151:Gen Physics I

<i>Course Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
<p><b>Kinematics and Newton's Laws -</b> Students will be able to solve problems involving kinematics and Newton's Laws <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Exam -</b> Applicable questions on exam 1 <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> Yes 71% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is expected since the exam material is fairly simple compared with later material in the PHYS 151 course (09/17/2019)</p>	<p><b>Action:</b> Keep this part of the course the same (09/17/2019)</p>
<p><b>Work, energy, momentum, and rotational kinematics -</b> Students will be able to solve problems involving work, energy, momentum, and rotational kinematics <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Exam -</b> Applicable questions on exam 2 <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> No 43% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is a mathematically, and problem-solving intensive part of this course. I anticipated that the students would have trouble here. (09/17/2019)</p>	<p><b>Action:</b> The exams are at the correct level – I think that support (tutoring, study groups etc) needs to increase for success here (09/17/2019)</p>
<p><b>Gravity, oscillations, waves/sound, and fluids -</b> Students will be able to solve problems involving gravity, oscillations, waves/sound, and fluids <b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Exam -</b> Applicable questions on exam 3 <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> Yes 57% of students had an an aggregate score of 70% or better on applicable exam questions (09/17/2019)</p>	<p><b>Action:</b> Keep this part of the course the same (09/17/2019)</p>
<p><b>Temperature, heat, phases and phase changes, and thermodynamics</b></p>	<p><b>Exam -</b> Applicable questions on</p>	<p><b>Reporting Period:</b> 2018-2019</p>	

<i>Course Outcomes</i>	<i>Assessment Measures</i>	<i>Results</i>	<i>Actions</i>
<p>- Students will be able to solve problems involving temperature, heat, phases and phase changes, and thermodynamics.</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p>exam 4 <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Criterion Met:</b> Yes 57% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is an adequate result for this part of this course. (09/17/2019)</p>	
<p><b>Physics lab equipment</b> - Correct operation of common physics lab equipment</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Assignment - Lab</b> - Correct completion of lab reports – the lab reports can only be completed if the experiments are done correctly. <b>Criterion:</b> 70% of students with an aggregate score of 70% or better on lab reports</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> Yes 100% of students with an aggregate score of 70% or better on lab reports</p> <p>Results Analysis: This is an adequate result for this part of this course. (09/17/2019)</p>	
<p><b>GEN ED, Scientific Reasoning scientific methodologies</b> - GEN ED, Scientific Reasoning: Demonstrate an understanding of the scientific methodologies used in various disciplines</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Exam</b> - Applicable questions on exams from throughout the course <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> Yes 57% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is an adequate result for this part of this course. (09/18/2019)</p>	
<p><b>GEN ED, Scientific Reasoning: scientific principles and concepts</b> - GEN ED, Scientific Reasoning: Effectively interpret and apply scientific principles and concepts</p> <p><b>Course Outcome Status:</b> Active <b>Next Assessment:</b> 2023-2024</p>	<p><b>Exam</b> - Applicable questions on exams from throughout the course <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> Yes 57% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is an adequate result for this part of this course. (09/18/2019)</p>	
<p><b>GEN ED, Scientific Reasoning: Scientific reasoning to the evaluation, analysis, or interpretation of models and theories</b> - GEN ED, Scientific Reasoning: Apply scientific reasoning to the evaluation, analysis, or</p>	<p><b>Exam</b> - Applicable questions on exams from throughout the course <b>Criterion:</b> 50% of students with an aggregate score of 70% or better on applicable exam questions</p>	<p><b>Reporting Period:</b> 2018-2019 <b>Criterion Met:</b> No 57% of students had an an aggregate score of 70% or better on applicable exam questions</p> <p>Results Analysis: This is an adequate result for this part of this course.</p>	

Course Outcomes	Assessment Measures	Results	Actions
<p>interpretation of models and theories developed in the sciences</p> <p><b>Course Outcome Status:</b> Active</p> <p><b>Next Assessment:</b> 2023-2024</p>		<p>(09/18/2019)</p>	
<p><b>GEN ED, Scientific Data Interpretation: Mathematical principles and quantitative methods to collect</b> - GEN ED, Scientific Data Interpretation: Effectively apply mathematical principles and quantitative methods to collect and analyze scientific data</p> <p><b>Course Outcome Status:</b> Active</p> <p><b>Next Assessment:</b> 2022-2023</p>	<p><b>Assignment - Lab</b> - Lab reports including data interpretation and quantitative methods</p> <p><b>Criterion:</b> 70% of students with an aggregate score of 70% or better on lab reports</p>	<p><b>Reporting Period:</b> 2018-2019</p> <p><b>Criterion Met:</b> Yes</p> <p>100% of students with an aggregate score of 70% or better on applicable sections of lab reports</p> <p>Results Analysis: This is an adequate result for this part of this course.</p> <p>(09/18/2019)</p>	
<p><b>GEN ED, Scientific Data Interpretation: Scientific method to arrive at informed conclusions</b> - GEN ED, Scientific Data Interpretation: Utilize the scientific method to arrive at informed conclusions</p> <p><b>Course Outcome Status:</b> Active</p> <p><b>Next Assessment:</b> 2023-2024</p>	<p><b>Assignment - Lab</b> - Correct use of scientific methods in lab reports</p> <p><b>Criterion:</b> 70% of students with an aggregate score of 70% or better on lab reports</p>	<p><b>Reporting Period:</b> 2018-2019</p> <p><b>Criterion Met:</b> Yes</p> <p>100% of students with an aggregate score of 70% or better on applicable sections of lab reports</p> <p>Results Analysis: This is an adequate result for this part of this course.</p> <p>(09/18/2019)</p>	<p><b>Action:</b> This was only the second time I have taught this course. The last time was 5 years ago. It is an extremely challenging course to teach with respect to student success – I had trouble getting students to consistently achieve at a high enough level to do well on my challenging exam questions. Student achievement goals were very easy to attain in lab. The labs are longer, hands-on, and there is much more time for direct contact and tutoring. This amount of contact cannot be replicated in lecture. I feel GBC needs to have more tutoring (currently on the INBRE program has it) or have more study sections or recitations. Without more support, courses like physics and chemistry will continue to be bottlenecks in our programs. (09/18/2019)</p>