

## Core Curriculum Annual Assessment

Year	2022-23
Course number and Name:	PHYS 2425 University Physics I
Component area:	Life and Physical Science
Number of sections offered:	Spring 2022 - 2 lecture on MWF & 6 labs; Summer 2022 - 1 lecture & 1 lab; Fall 2022 - 1 lecture on MWF & 4 labs; Spring 2023 - 2 lecture on MWF & 6 labs
Honors section:	Spring 2022 - 1 lecture on TR & 1 lab; Summer 2022 - not offered; Fall 2022 - not offered; Spring 2023 - 1 lecture on TR & 1 lab
Number of students enrolled:	97 students (Spring 2022); 23 students (Summer 2022); 75 students (Fall 2022); 111 students (Spring 2023)
Honors section:	13 students (Spring 2022); 11 students (Spring 2023)
Contact Person (include email & Phone#)	Dr. Phil Cole (Chair) <a href="mailto:pcole@lamar.edu">pcole@lamar.edu</a> 409.880.8292

### Summary of Continuous Improvement Efforts since Last Report

*Provide a brief description of how assessment results have been used for core course improvement. Point to a specific example of how an assessment provided the department with data it could use for improvement and what that improvement was, if possible, also show evidence of the improvement. You may look at data from the two previous academic years to support this case.*

Respond here:

### Course highlights Since Last Report

*Identify and briefly discuss any changes made to the course since the last report.*

- When we have multiple lecture sections of PHYS 2425, we divide the students equally between the lecture sections to promote student involvement and student success due to smaller class sizes and lower student/faculty ratio across sections.
- This course (PHYS 2425) is offered every semester, including Summer semesters. If a student did not pass PHYS 2425 during the Fall or Spring semester, a Summer course allows this student to catch up and pass so that they may stay on track to take PHYS 2426 in the Fall.
- In 2018, we switched from T-TH to MWF lecture sections for PHYS 2425, where practicable. This change was made to increase student success by increasing student understanding of this difficult material. Offering the course three times per week, instead of two times per week, reinforces students' grasp of the concepts by reducing the number of days between class sessions.
- Since 2017, new lab equipment has been purchased, as needed, secured with HEF funding as well as Physics Department monies in the amount of \$6,000 per year, on average. This change supports student learning and success by upgrading the equipment that students use to perform experiments. (Note. This \$6,000 is used to improve lab equipment across all lab courses.)

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- Lab manuals for this course have been updated. In addition, lab manuals are written by department faculty and sold to students at a cost of \$25, which is not far above printing cost and which supports student success by reducing the financial burden of purchasing course materials.
- Using funding secured from a special grant by the Lamar University Provost, we increased the number of students per lab from 18 to 24. As each lab station has three students, lab sections now have a total of eight lab stations per section.

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**Table 1. Assessment Results and Analysis for Current Cycle**

Stage 1: PLAN			STAGE 2: DO		Stage 3: STUDY	
General Education Competencies Addressed in this Course:	Assessment Method(s) – e.g. pre/post tests, embedded questions, portfolio evaluation, rubric-scored essay; list only activities for which you are reporting assessment data	Proficiency – e.g. the proficient student will correctly answer 5 out of the 6 embedded questions on the final exam	Benchmark – e.g. 80% of students taking the final exam will correctly answer 5 of the 6 embedded questions on the final exam	Results of course assessment(s)	Analysis of results – e.g. strengths and weaknesses What does this data tell you? How will you use this data? How were data from the last cycle used to make changes during this cycle, and what were the results of those changes?	Recommendations for Course based on assessment
Communication (required)						
Critical Thinking (required)						
<b>Select One:</b> ___ Empirical & Quantitative Skills ___ Teamwork ___ Social responsibility ___ Personal Responsibility						

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<b>Select One:</b> <input type="checkbox"/> Empirical & Quantitative Skills <input type="checkbox"/> Teamwork <input type="checkbox"/> Social responsibility <input type="checkbox"/> Personal Responsibility						
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Table 2. Continuous Improvement Results Since Last Report

STAGE 4: ACT		
<b>Actions/Goals based on data results</b> <i>*copy last cycles actions/goals and report on progress toward continuous improvement on those here</i>	<b>Status</b> <i>C=Complete</i> <i>P=Progressing</i> <i>N=No action taken</i>	<b>Discussion of status</b> <i>If C, describe efforts that led to accomplishment of actions/goals</i> <i>If P, provide update on progress made toward accomplishing actions/goals and what tasks remain</i> <i>If N, discuss why action toward accomplishing actions/goals has been delayed and what work will be initiated toward accomplishment.</i>