



 **SUNY CANTON**

PHYSICS CURRICULUM
Canino School of Engineering Technology
Fall 2015 Assessment Report



How was the assessment accomplished?

- Student work assessed depended on course:
 - Examinations, Projects, and Labs.
- Measurement strategy:
 - % of questions answered correctly on exams, project reports, and lab reports.
- Sample size:
 - All students in all Physics courses



Physics Department

	Measures	Not Met		Met		Exceeded	
	<u>N</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
All Courses	38	6	16%	5	13%	27	71%
PHYS 115	4	0	0%	0	0%	4	100%
PHYS 121	4	1	25%	1	25%	2	50%
PHYS 122		No Measures, No Findings					
PHYS 125	6	0	0%	1	17%	5	83%
PHYS 126		No Measures, No Findings					
PHYS 131	4	2	50%	1	25%	1	25%
PHYS 133	4	0	0%	1	25%	3	75%
PHYS 135	3	0	0%	1	33%	2	67%
PHYS 137	6	1	17%	0	0%	5	83%
PHYS 391	3	1	33%	0	0%	2	67%
PHYS 410	4	1	25%	0	0%	3	75%



The following courses EXCEEDED course outcomes (more than 80%)

Course	Name	Percentage
PHYS 115	Basic Physics	100%
PHYS 133	University Phys III	100%
PHYS 125	Physics lab I	100%
PHYS 135	U. Phys Lab I	100%
PHYS 137	U. Phys Lab III	83%



The following courses MET course outcomes (70% - 80%)

Course	Name	Percentage
PHYS 121	College Physics I	75%
PHYS 410	Solid State Science	75%



The following courses DID NOT MEET course outcomes (<70%)

Course	Name	Percentage
PHYS 131	University Physics I	50%
PHYS 391	Special Topics	67%



Overall Results

77.8% of course outcomes were met/exceeded for all Physics courses.

- PHYS 131 (Calculus-based Physics Course) has typically not been that successful
- PHYS 391 (Special Topics-Vision & Light) was offered for GMMD program. Students did lack mathematics skills.



Assessment results: What have the data told us?

- A closer look at each individual course measure is needed to determine which measures were not met and which ones need revision.
- Students struggled the most in:
 - Calculus based physics course (PHYS 131) and Course for non-science major students (PHYS 391).
- Students did the best in:
 - PHYS 115 (Basic Physics) and PHYS 125 (Physics Lab I).



Data-driven decisions: How the department has or plans to “close the loop” based on these results.

- Review course assessment measures to be sure they measure the course objectives
- Review course objectives and make sure to have common course objectives



What resources were used or have been requested to close the loop?

- Resources needed:
 - Individual faculty time to revise a course

