# **Curriculum Committee**





School or Division	School of Pure and Applied Sciences	
Program or Certificate	General Education Program	
Proposed by (faculty only)	Dr. Yadab Paudel	
Presenter (faculty only)	Dr. Yadab Paudel	
Note that the presenter (faculty) listed above must be present at the Curriculum Committee meeting		
or the proposal will be returned to the School or Division and be resubmitted for a later date.		
Submission date	2/10/2016	
Current course prefix, number, and title	PHY2048L, General Physics I Lab	

# **Section I, Proposed Changes**

Change to course prefix and number	List new course prefix and number		
Lecture/lab course combined must include "C" /			
lab course must include "L"			
Change to course title	List new course title		
Change of School, Division, or Department	List new school, division, or department		
Change to course prerequisite(s) and minimum	From:		
grade(s) (must include minimum grade if higher	To:		
than a "D")			
Change to course corequisites	From:		
	То:		
Is any corequisite for this course listed as a	Choose an item.		
corequisite on its paired course?			
(Ex. CHM 2032 is a corequisite for CHM 2032L, and	List the corequisite		
CHM 2032L is a corequisite for CHM 2032)			
Change to course credits or clock hours	From:		
	То:		
Change to contact hours (faculty load)	From:		
	То:		
Change to grade mode Choose an item.			
Change to credit type Choose an item.			
Change to course description (provide below)			
Type in entire new course description here			
Change to general topic outline (type in entire new outline below)			
Experimental uncertainty (errors) and data analysis			
Measuring density			
Acceleration of gravity			
Addition and resolution of forces			
Atwood machine			

- Friction
- Centripetal force
- Work and energy
- Projectile motion: the ballistic pendulum
- Torques, equilibrium, and center of gravity
- Simple harmonic motion
- Simple pendulum
- Archimedes' principle
- Standing waves
- Speed of sound in air

Change to Learning Outcomes: For information purposes only.

### IV. Course Competencies, Learning Outcomes and Objectives

- A. General Education Competencies and Course Outcomes
- 1. Integral General Education Competency or competencies: **Evaluate**

Course Outcomes or Objectives Supporting the General Education Competency Selected:

Learning Outcomes	Assessments	General Education
		Competencies
Recognize the effects of errors in measurements and illustrate their impact on the experimental data and results.  Use appropriate measuring devices in distinguishing between measurements/determination mass and density, and experimentally determine the density of a given object.  Investigate the laws of motion and experimentally determine the acceleration of gravity and of a given object in linear and circular motion.  Apply and distinguish between graphical and analytical methods in calculating physical quantities.  Evaluate the validity of empirical "laws" as they relate to the experimental determination of the coefficient of friction between two given surfaces and Hooke's	Lab reports, exams and/or projects.	Evaluate and utilize mathematical principles, technology, scientific and quantitative data.

	Explain the relationship between work and
	energy and compare and contrast
	conservation laws for ideal systems with
П	the non-conservative aspects of situations
Н	under laboratory conditions.
П	Investigate and distinguish between the
	concepts of "center of mass" and "center of
Н	gravity" while experimenting with the static
Н	equilibrium of an object under the
	influence of forces and torques.
	Distinguish between the quantities
	"density" and "specific gravity"; apply
	Archimedes' principle in determining these
l	quantities for solid and liquid samples.
	Distinguish between the concepts of
	"node," "antinode," and "resonance" in
	your investigation of waves and
	experimentally calculate the speed of a
	wave.

- 2. Supplemental *General Education Competency or competencies*: None
- B. In accordance with Florida Statute 1007.25 concerning the state's general education core course requirements, this course along with PHY 2048 meets the general education competencies for *science*.
- 1. Students will demonstrate the ability to critically examine and evaluate scientific observation, hypothesis, or model construction, and to use the scientific method to explain the natural world.
- 2. Students will successfully recognize and comprehend fundamental concepts, principles and processes about the natural world
- C. Other Course Objectives/Standards
  None

#### Section II (must complete each item below)

Should any major restrictions be listed on this	No change
course? If so, select "change" and list the appropriate major restriction codes or select no	,
appropriate major restriction codes or select no	
change.	
Change course to an "International or Diversity	No, not International or Diversity Focus
Focus" course?	
Change course to a General Education course?	No

Change course from General Education to non- General Education?	No
Change course to a Writing Intensive course?	No
Change course from Writing Intensive to non-	No
Writing intensive?	
Change course to repeatable?	No
(A repeatable course may be taken more than one	
time for additional credits. For example, MUT 2641, a	
3 credit hour course can be repeated 1 time and a	₩ .
student can earn a maximum of 6 credits).	
*Not the same as Multiple Attempts or Grade	
Forgiveness	

Impact of Change of Course Proposal			
Will this change of course proposal impact other	No		
courses, programs, departments, or budgets?			
If the answer to the question above is "yes", list			
the impact on other courses, programs, or			
budgets?			
Have you discussed this proposal with anyone (from other departments, programs, or institutions)			
regarding the impact? Were any agreements made? Provide detail information below.			
No			

#### Section III, Justification for proposal

## Provide justification (below) for each change on this proposed curriculum action

The removed topics from topic outline are covered in PHY 2049L and should not appear in the topic outline for PHY 2048L.

#### Section IV, Important Dates and Endorsements Required

List all faculty endorsements below. (Note that proposals will be returned to the School or Division if faculty endorsements are not provided).

Prof. George Manacheril, Dr. Marius Coman

**NOTE:** Course and Program changes must be submitted by the dates listed on the published Curriculum Committee Calendar. Exceptions to the published submission deadlines must receive prior approval from the Provost's Office.

Term in which approved actic	n will take place	Fall 2017			
Term in which approved action will take place		6 50(65) 6.60( 6.60)			
Exception to term (other than Fall 2016)  Provide an explanation below for the requested e		Choose an item.			
Provide an explanation below	Tor the requested (	exception to the Fall 201	.b term	effective date.	
Any exceptions to the term st	art date (other than	n Fall 2016) requires the	signatu	res of the Academic	
Dean or Associate Vice Presid	· ·				
submission to the Dropbox.					
Dean or Associate Vice	Signature			Date	
President					
Provost and VPAA	Signature			Date	
Dr. Jeff Stewart	o.g.i.acai o				
Required Endorsements	Type in Name		Select	ect Date	
Department Chair or	George Manacheri	il	2/10/2016		
Program		-			
Coordinator/Director					
Academic Dean or	Dr. Martin McClinton		10/7/2016		
Associate Vice President					
All Curriculum proposals require or denial of a proposal is reflect Approve			d the Pro	ovost. Final approval	
Don Kansford				11/09/2016	
Curriculum Committee Chair Signature		Date			
Approve Do	not approve			1119116 Date	