

## PHYS 4101/6101: Theoretical Mechanics I

Instructor: K. Nakayama, Room 219

Reading List:

Text 0 – *Note on Lagrangian Mechanics (2017 revised version)*, K. Nakayama

Text 1 – *Classical Dynamics of Particles and Systems*. Jerry B. Marion and Stephen T. Thornton (Harcourt Brace, 1995)

Text 2 – *Introduction to Classical Mechanics*, David Morin, (Cambridge, 2008).

Text 3 – *Classical Mechanics*, John R. Taylor, (University Science Books, 2005).

Office Hours: MWF 11:30-12:30.

In-class Exams: Test I, Test II (All Closed Book)

Final Exam: (Cumulative.) Replaces the lowest Test grade. Students with Test grades  $\geq 70$  in both tests may choose not to take the Final Exam.

Excused Absences: An excused absence for any test will cause the final exam grade to be substituted for that test grade.

Homework: Selected Problems will be graded. Your lowest homework score will be dropped from your course average. No other allowances will be made for late or missed homework. Your homework average constitutes 1/3 of your course grade. Homework study groups are strongly encouraged, but you must hand in your own work. Plagiarism is forbidden by the Academic Honesty Policy of UGA and will be dealt with accordingly.

Grade: PHYS 4101 Grade =  $(\frac{1}{3} \times \text{Homework} + \frac{1}{3} \times \text{Test I} + \frac{1}{3} \times \text{Test II})$   
PHYS 6101 Grade =  $(0.9 \times \text{PHYS 4101 Grade} + 0.1 \times \text{Honors Problems})$

Incompletes: Rules concerning withdrawals and incompletes: We will follow the rules of the UGA Bulletin concerning withdrawals and incompletes.

Grading Scheme: Use of the plus/minus system is a requirement – it is the only grading system approved for the University of Georgia.

$A$	$\equiv$	[85, 100]	$A-$	$\equiv$	[82.5, 85)			
$B+$	$\equiv$	[80, 82.5)	$B$	$\equiv$	[70, 80)	$B-$	$\equiv$	[67.5, 70)
$C+$	$\equiv$	[65, 67.5)	$C$	$\equiv$	[55, 65)	$C-$	$\equiv$	[52.5, 55)
$D$	$\equiv$	[40, 52.5)	$F$	$\equiv$	[0, 40)			

Academic Honesty: All academic work must meet the standards contained in "A Culture of Honesty." Students are responsible for informing themselves about those standards before performing any academic work. More detailed information about academic honesty can be found at the website given above. As a UGA student, you are responsible for knowing and understanding this policy. If you have any questions about the propriety of actions relating to this course, you are obligated to ask me for clarification. See also the UGA website: <http://www.uga.edu/honesty/>.

## **Topics:**

We follow tentatively the topics as listed in the assigned **Text 0** (available at our course website). They are subject to changes and you are *responsible* to keep track on any such changes.