Physics 410  F18   Info and Syllabus

Instructor:  Prof. Adil Hassam,  AVW3307,  5-1417,  hassam@umd.edu

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Class times:  Tue-Thu 9:00am-10:50am   in PHY 1201

Class web page: https://terpconnect.umd.edu/~hassam/410/phys410.html

Textbooks:  Classical Mechanics by John R. Taylor  (required)  
Classical Mechanics  by Baeirlein (recommended extra reading)

Homework:  Homework will typically be assigned on a weekly basis.  Most homework 
problems will be assigned from the text by Taylor.  Details to follow.

Grading Criteria:  20% Homework, 50% Two Midterms, 30% Final.

Syllabus:  Physics 410 is about the theoretical foundations and applications of classical 
mechanics.  We will study and apply Newton’s Laws and develop the fundamental 
concepts of momentum and energy conservation.  Damped and driven oscillations will be 
studied. We will introduce phase space and Lagrangian mechanics.  The central force 
problem will be examined.  We will extend inertial frame descriptions to mechanics in 
noninertial reference frames. Other topics will be chosen from rotational motion of rigid 
odies, coupled oscillators and normal modes, Hamiltonian mechanics, and relativity.  4 
Credits.

Attendance:  Attendance in lectures is strongly encouraged. Generally, I will follow the 
text closely.  However, my emphases will obviously be significantly nuanced.

Office Hours:  Tentative:  Wednesdays 12.00pm - 1.00pm.  Feel free to stop by at other 
times, but email ahead to make sure I am there.

Final Exam:  TBA

Academic Integrity:  The university has approved a code of academic integrity available on the web. The 
code prohibits students from cheating on exams, plagiarizing papers, submitting the same paper for credit 
in two courses without authorization, buying papers, submitting fraudulent documents, or forging 
signatures. The university senate requires that students include the following signed statement on each 
examination or assignment: I pledge on my honor that I have not given or received any unauthorized 
assistance on this examination (or assignment). Compliance with the code is administered by a student 
honor council, which strives to promote a community of trust on the College Park campus. Allegations of 
academic dishonesty may be reported directly to the honor council (301-314-9154) by any member of the 
campus community.