

ENES221 Dynamics**Syllabus****Spring 2019**Instructor: [Craig T.G.-Mogren](#)

Office: SC 436E

Class Time: TR 11-12:15

Section: 31331

Room: SW 213

Phone: 204-567-5237

E-Mail: Craig.Mogren@MontgomeryCollege.eduWebsite: <http://web4students.montgomerycollege.edu/facultyFTPSites/cgarriso/>

Username: PH_ES

Password: studyharder

Text: Dynamics, 14th Ed, by Hibbeler

Schedule:

Week	Chapter	Subject	Problems
1	12.1-2	What is Dynamics	12.6, 11, 25
	12.3	Particle kinematics	12.43, 54, 63
2	12.4-6	Rectangular coordinates	12.76,83,90,108
	12.7-8	Curvilinear coordinates	12.120,147,174,181
3	12.9-10	Multiple particles	12.202,222,228
	13.1-4	Laws of Motion	13.5,11,15,26,33,46
4	13.5	Normal and tangent coordinates	13.60,73,82
	13.6	Cylindrical coordinates	13.93,101,111
5	14.1-3	Work and Energy	14.2,12,41
	12-13	TEST#1	
6	14.5-6	Potential energy	14.78,88,103
	14.4	Power and Efficiency	14.50,61,69
7	15.1-3	Impulse and Momentum	15.7,12,24,39,41,44,52
	14	TEST#2	
8	SPRING BREAK		
9	15.4	Impact	15.64,78,85
	15.5-7	Angular Impulse and Momentum	15.93,100,107
10	12-15	Review	
		TEST#3	
11	16.1-3	Rigid body planar kinematics	16.5,16,31,37,50
	16.5-6	Relative motion: velocity	16.64,75,97
12	16.7-8	Relative motion: acceleration	16.111,127,142,155
	17.1-3	Moment of Inertia and planar kinetics	17.9,21,30,54
13	17.4-5	Planar equations of motion	17.62,78,99,117
	18.1-5	Work and Energy	18.5,29,50,68
14	19.1-2	Impulse and momentum	19.4,31
	16-17	TEST#4	
15	19.3-4	Conservation of momentum and impact	19.40,55
	20.1-3	3-D Kinematics	20.5,11,40,46
16		FINAL	

[Scheduled Final Exam](#) Thursday, May. 9, 2:45-4:45 pm

ENES221 Dynamics

Rules

- 1- The chapters to be covered and homework assignments for each week are on the schedule. The class moves through the material quickly so it will make more sense if you are prepared.
- 2- The homework is a representation of what you can expect to know for that week's classwork. The class and test problems will not be the same, but by doing these problems and understanding them is the minimum preparation for the classwork.
- 3- Each week there will be a group problem on that week's material. The group work is handed in at the end of class and the graded as a group.
- 4- There will be four tests. The lowest test grade will be dropped. There are no makeup tests. All tests are open book and one, one sided, 8.5x11 inch, sheet of notes. You may only bring your text book for this class (no eReaders or online text).
- 5- There will be a two hour comprehensive final exam. This exam is open book and you can bring your notes from the previous tests. This exam gives you a final opportunity to show that you understand the course material.
- 6- The full Class Performance grade is given to everyone at the beginning of the semester. It is assumed that everyone is an honest and responsible person. But, by rarely coming to class, being a disturbance in class, cheating, etc., you can lose that grade. This does not happen often. One must show themselves to be irresponsible.
- 8- All communication devices, like cell/smart phones or tablets, must be turned OFF (not just the ringer) when in the classroom. These devices cannot be used when working on the problems.
- 9- CLASS ATTENDANCE IS MANDATORY. YOU ARE ALLOWED ONLY THREE UNEXCUSED ABSENCES. CALL ME OR LEAVE A MESSAGE (phone: 240-567-5237 or e-mail: craig.mogren@montgomerycollege.edu) **BEFORE** CLASS IF YOU CANNOT ATTEND A CLASS SESSION.

FINAL GRADE	
CLASS PERFORMANCE	10 (PERCENT)
GROUP PROBLEMS	10
TESTS	60
FINAL EXAM	<u>20</u>
	100

Canceled Classes: Listen to the radio (**not** Montgomery County Schools) or check the college website (<http://www.montgomerycollege.edu>).

Important Links for Students

2018-2019 Catalog PDF: <http://appserv3.montgomerycollege.edu/acalog/working/all-catalog.pdf>

Final Exam Schedule: <https://cms.montgomerycollege.edu/EDU/Department2.aspx?id=48071>

Academic calendar: When is Spring break? When are midterm exams? When does the Spring semester begin? <http://cms.montgomerycollege.edu/edu/department2.aspx?id=16456>

ADA Information and Compliance: <http://cms.montgomerycollege.edu/edu/Department.aspx?id=53990>

Alert Montgomery System: Sign up for Alert Montgomery the official emergency communications service for Montgomery County, MD. During a major crisis, emergency or severe weather event, Montgomery County officials can send event updates, warnings and instructions directly to you on any of your devices. <https://member.everbridge.net/index/1332612387832009#/login>

Code of Conduct: If you have questions regarding behavioral expectations: <http://cms.montgomerycollege.edu/WorkArea/DAsset.aspx?id=35945>

Counseling: General and personal counseling. <http://cms.montgomerycollege.edu/edu/secondary1.aspx?urlid=4>

Academic Advising: See your academic faculty

Disability Support Services: If you are requesting a reasonable accommodation related to a disability: <http://cms.montgomerycollege.edu/edu/secondary5.aspx?urlid=52>

Fuel for Success - Nourishing the Mind, Body, and Spirit: <http://cms.montgomerycollege.edu/student-health-and-wellness/fuel-for-success/>

Forms: graduation, involuntary withdraw, change of major, appeals. <http://cms.montgomerycollege.edu/edu/department2.aspx?id=10072>

Learning Centers and Academic Support Centers: If you are a student who would benefit from tutoring and/or support in reading, writing languages, mathematics, Science, and Technology: <http://cms.montgomerycollege.edu/learningcenters/>

Safety, Security, & Emergency Operations Plan: Contacts for security offices, Emergency guidelines & procedures, evacuations, Montgomery College Alert, Emergency Guidelines for Individuals with Disabilities, <http://cms.montgomerycollege.edu/edu/plain2.aspx?id=4087>

Sexual Harassment or Discrimination: Office of Equity and Diversity. <http://cms.montgomerycollege.edu/edu/Department2.aspx?id=65693>