

Course No.	M2794.001200 002	Sub. No.	2	Course Name	Dynamics	Unit	3
Lecturer	Name : Dongjun Lee, Professor			Homepage : http://inrol.snu.ac.kr			
	E-mail : djlee@snu.ac.kr			Telephone : 02-880-1724			
	Office hour: M/W 1-2pm or by appointment						
1. Goal	- able to understand, formulate, and solve kinematics of particles and rigid bodies in 2D and 3D - able to understand, formulate, and solve dynamics of particles and rigid bodies in 2D and 3D - able to apply the concepts of dynamics to practical engineering problems						
2. Textbook and references	F. P. Beer & E. R. Johnston Jr., "Vector Mechanics for Engineers, Dynamics," 12th Edition in SI Units, McGraw-Hill (Edition doesn't matter: HW will be scanned and distributed by the TAs).						
3. Evaluation	quiz	homework	mid exam	final exam			Total
	15	15	30	40			100%
	- mid-term: 10/30/2020(F) 7-9pm; final exam: 12/14/2020(M) 7-9:30pm						
4. Schedule	week	Tentative Schedule					
	1	introduction, particle kinematics (Ch. 11)					
	2	particle kinematics: non-Cartesian coordinates (Ch. 11)					
	3	particle dynamics: linear and angular momentum (Ch. 12)					
	4	particle dynamics: energy & momentum methods (Ch. 13)					
	5	particle dynamics: impulse and impact (Ch. 13), system of particles (Ch. 14)					
	6	system of particles (Ch. 14)					
	7	rigid body kinematics in 2D (Ch. 15)					
	8	rigid-body kinematics in 2D/3D (Ch. 15)					
	9	rigid-body kinematics in 3D (Ch. 15), rigid-body dynamics in 2D (Ch. 16)					
	10	rigid-body dynamics in 2D (Ch. 16)					
	11	rigid body dynamics in 2D: energy & momentum methods (Ch. 17)					
	12	rrigid-body dynamics in 3D (Ch. 18)					
	13	rigid-body dynamics in 3D (Ch. 18)					
	14	brief introduction to Lagrangian dynamics (if time permits)					
15	review						
5. Notice	* Due to the Covid pandemic, the course will be offered in remote/non-contact fashion with ZOOM; mid-term and final exams however will be held on site in the building #301 (time/room TBA) - Attendance is mandatory: more than or equal to 5 unjustified absences = F grade; one absence (or more than 15 min tardiness) = -2 points; one tardiness (i.e., < 15 min tardiness) = -1 point - TA session will be held every other week, solving problem sets and etc (time/place: TBA). TA session attendance is also mandatory and one absence = 1% point off from your final grade. - HW will be graded 0/0.5/1.0 from 0-1 scale; HW should be turned in at the beginning of the lecture on the due date; if turned in late but on the same day = -50%; otherwise = 0% - You are expected to behave professionally in the class: going-in/out during the class, phone call, texting, or any other unprofessional behaviors are now allowed.						
6. Process of cheating act	Any form of academic dishonesty is strictly prohibited in this course and, if caught, may result in F-grade and academic disciplinary actions.						