



## Ewha International Summer College

# Course Syllabus

## [Dynamics]

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**Home Univ.:** Hanyang University  
**Dept.:** School of Mechanical Engineering

**Description:** In this course, fundamental terminologies and concepts in dynamics are explained. How to describe the motions of a particle and a rigid body is the next subject of lecture. To describe the motion, vector notations are employed along with coordinate systems. Then a method of drawing a free body diagram is studied. Basing on the diagram, equations of motions are derived. Force as well as motion information is obtained from the equations of motion. Two integral principles are introduced where the concepts of work, energy, impulse, and momentum are employed. Advantages of using integral principles are discussed.

**Objective:** Fundamental terminologies and concepts in dynamics of mechanical systems are explained

**Prerequisite:** [Textbook needed?] [Pre-knowledge needed?] [Materials needed?]

Credits	3	Contact Hours	45
Week 1	6/25(Thu)	Introduction	
Week 2	6/29(Mon)	Particle Kinematics	
	6/30(Tue)	Particle Kinematics	
	7/1(Wed)	Particle Kinematics	
	7/2(Thu)	Particle Kinetics	
Week 3	7/6(Mon)	Particle Kinetics	
	7/7(Tue)	Particle Kinetics	
	7/8(Wed)	Mid Exam	
	7/9(Thu)	Planar Kinematics	
Week 4	7/13(Mon)	Planar Kinematics	
	7/14(Tue)	3D Kinematics	
	7/15(Wed)	3D Kinematics	
	7/16(Thu)	Planar Kinetics of Rigid Bodies	
Week 5	7/20(Mon)	Planar Kinetics of Rigid Bodies	
	7/21(Tue)	Final Exam	

Evaluation(%)	Midterm	Final	Attendance	Assignments	Participation	Etc.
	30	40	10	20	0	0

**※ Applicants with intent for more than one course are asked to make up a syllabus for each, repeatedly using the above template.**