



# HANYANG UNIVERSITY

## 2019 HISS Syllabus (Statics)

Professor: **Chi-Wook Lee**  
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Home Univ.: University of the Pacific  
Dept.: Mechanical Engineering Department

Description: The fundamental principles of static equilibrium resulting from the application of forces on particles and bodies.

Objective: After the completion for the course, students should be able to

- Draw, interpret, and use free-body diagrams,
- Apply the principles of equilibrium; incorporate forces and moments to solve equilibrium problems,
- Analyze simple frames, machines, and trusses using the principles of equilibrium,

Calculate centroids and moments of inertia.  
*Prerequisites: Calculus II and Principle of Physics I.*

Preparations: Vector Mechanics for Engineers: Statics by Beer, et al., 11th Edition. McGraw Hill, 2016, ISBN 978-0-07-768730-4

Schedule:

Week 1	Introduction, Units, Vectors , Forces, free body diagrams
Week 2	Moments, couples, Equivalent systems, force system applications and Test 1
Week 3	Trusses, Frames and Machines and Test 2
Week 4	Centroids and composite areas, Moments of Inertia and Test 3

### Hanyang International Summer School

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Evaluation:	Test 1 (%)	Test 2 (%)	Test 3 (%)	Attendance (%)	Assignments (%)	Participation (%)
	<b>30 (%)</b>	<b>30 (%)</b>	<b>30 (%)</b>	0	<b>10</b>	0