

## MAE342 Mechanism Design (3-0-3) (2009 Fall)

1. Lecturer: Kim, Kyung-Woong (Tel: 3215, e-mail: taeho@kaist.ac.kr, N7 #3205)
2. Class Time: Tue. & Thu. 14:30 - 16:00
3. Textbook: Arthur G. Erdman, George N. Sandor and Sridhar Kota,  
"Mechanism Design: Analysis and Synthesis, Volume I" Fourth Edition, Prentice Hall
4. Grading : Mid-Term Exam 35%, Final Exam 35%, Homework 20%, Attendance 10%  
Homework is due at 14:30 a week after its assignment
5. Teaching assistants: Hong, Sung-Ho, Kim, Dong-Wook, Son, Sang-Ik  
(Precision Machine Elements and Tribology Lab., Tel.: 3286, 3255)
6. Schedule :

		Topics	Remarks
1	9/1(tue)	Introduction	
2	9/3(thu)	1.1-1.6 Motion & Linkage	
3	9/8(tue)	1.7-1.9 Design Example	HW #1
4	9/10(thu)	2.1-2.7 Mechanism Design	
5	9/15(tue)	3.1-3.3 Displacement Analysis	
6	9/17(thu)	3.4-3.5 Relative Motion	HW #2
7	9/22(tue)	3.6-3.7 Velocity Analysis	
8	9/24(thu)	3.8-3.9 Instant Center	
9	9/29(tue)	3.10-3.11 Analytical Method	HW #3
10	10/1(thu)	4.1-4.2 Acceleration Difference	
11	10/6(tue)	4.3 Relative Acceleration	
12	10/8(thu)	4.4 Coriolis Acceleration	HW #4
13	10/13(tue)	4.4 Coriolis Acceleration	
14	10/15(thu)	4.5 Curved Slots and Higher Pair Connections	
	10/22(thu)	Mid-Term Exam (14:30 - 16:00)	
15	10/27(tue)	5.1-5.3 Kinetostatic Analysis of Mechanism	
16	10/29(thu)	5.4-5.6 Superposition Method and Matrix Method	HW #5
17	11/3(tue)	6.1-6.5 Cam Design : Displacement Diagrams	
18	11/5(thu)	6.6-6.7 Graphical Cam Profile Synthesis	
19	11/10(tue)	6.8 Analytical Cam Profile synthesis	
20	11/12(thu)	6.9-6.10 Cam-Modulated Synthesis	HW #6
21	11/17(tue)	7.1-7.4 Gears	
22	11/19(thu)	7.5-7.7 Gear Trains	
23	11/24(tue)	7.8-7.9 Gear Trains	HW #7
24	11/26(thu)	8.1-8.3 Type Synthesis	
25	12/1(tue)	8.4-8.9 Graphical Synthesis	
26	12/3(thu)	8.10-8.13 Introduction to Analytical Synthesis	HW #8
27	12/8(tue)	8.14-8.17 Three-Precision-Point Synthesis	
28	12/10(thu)	8.18-8.20 Synthesis Method	
	12/17(thu)	Final Exam (14:30 - 16:00)	