Mechanical System Analysis

(Spring 2015)

Callendar		
Week	Lecture	Remarks
1	Introduction, Concepts, Terminology	
2	Lapalce Transformation	
3	Mathematical modeling of dynamic systems	
4	Transfer Function Approach to Modeling Dynamic Systems	
5	State space Approach to Modeling Dynamic Systems	
6	Fluid Systems and Thermal Systems	
7	Electrical Systems	
8	Midterm exam	Exam
9	Time Domain Analysis of Dynamic Systems	
10	first order/second order systems	
11	transient analysis	
12	analysis with MATLAB	Design exercise with matlab
13	Frequency Domain Analyses of Dynamic Systems	Design exercise with matlab
14	Stability Introduction to control systems	Design exercise with matlab
15	Review autonomous vehicle and automated driving	
16	Final Exam	Exam