

Week	Date		Lec/Midterm	Contents	HW (due 11:59pm)	Instructor office hour (TuTh: 5-6pm)
#1	11-Jan	Mon	L1	Introduction		
	12-Jan	Tue				Nagamune
	13-Jan	Wed	L2	Model classification		
	14-Jan	Thu				Nagamune
	15-Jan	Fri	L3	State-space model		
#2	18-Jan	Mon	L4	Linearization	HW1 given	
	19-Jan	Tue				Nagamune
	20-Jan	Wed	L5	Solution to state-space model		
	21-Jan	Thu				Nagamune
	22-Jan	Fri	L6	Discretization		
#3	25-Jan	Mon	L7	BIBO stability		
	26-Jan	Tue				Nagamune
	27-Jan	Wed	L8	Internal stability		
	28-Jan	Thu				Nagamune
	29-Jan	Fri	L9	Lyapunov Theorem	HW1 due	
#4	1-Feb	Mon	L10	Controllability	HW2 given	
	2-Feb	Tue				Nagamune
	3-Feb	Wed	L11	Minimum energy control		
	4-Feb	Thu				Nagamune
	5-Feb	Fri	L12	Decomposition for controllability		
#5	8-Feb	Mon	L13	Observability		
	9-Feb	Tue				Nagamune
	10-Feb	Wed	L14	Kalman decomposition		
	11-Feb	Thu				Nagamune
	12-Feb	Fri	L15	Controllability & observability in DT case	HW2 due	
				Reading break		No office hour
#6	22-Feb	Mon		Q&A session before midterm		
	23-Feb	Tue				Nagamune
	24-Feb	Wed	Midterm	1pm-1:50pm		
	25-Feb	Thu				Nagamune
	26-Feb	Fri	L16	Realization: Controllable canonical form	HW3 given	
#7	1-Mar	Mon	L17	Realization: Observable canonical form		
	2-Mar	Tue				Nagamune
	3-Mar	Wed	L18	Minimal realization		
	4-Mar	Thu				Nagamune
	5-Mar	Fri	L19	State feedback		
#8	8-Mar	Mon	L20	State feedback: Canonical form method	HW3 due	

	9-Mar	Tue				Nagamune
	10-Mar	Wed	L21	State feedback, stabilizability	HW4 given	
	11-Mar	Thu				Nagamune
	12-Mar	Fri	L22	Servo control		
#9	15-Mar	Mon	L23	Observer		
	16-Mar	Tue				Nagamune
	17-Mar	Wed	L24	Observer-based control		
	18-Mar	Thu				Nagamune
	19-Mar	Fri	L25	Finite-horizon LQR		
#10	22-Mar	Mon	L26	Infinite-horizon LQR	HW4 due	
	23-Mar	Tue				Nagamune
	24-Mar	Wed	L27	Discrete-time LQR	HW5 given	
	25-Mar	Thu				Nagamune
	26-Mar	Fri	L28	Least-squares estimation		
#11	29-Mar	Mon	L29	Kalman filter		
	30-Mar	Tue				Nagamune
	31-Mar	Wed	L30	Steady-state KF, LQG, course summary		
	1-Apr	Thu				Nagamune
	2-Apr	Fri	Holiday	Good Friday		
#12	5-Apr	Mon	Holiday	Easter Monday		
	6-Apr	Tue			HW5 due	Nagamune
	7-Apr	Wed		Project presentation		
	8-Apr	Thu				Nagamune
	9-Apr	Fri		Project presentation		
#13	12-Apr	Mon		Project presentation		
	13-Apr	Tue				Nagamune
	14-Apr	Wed		Project presentation (End of Term 2)		
	15-Apr	Thu				Nagamune
	16-Apr	Fri	N/A	N/A	Project report due (MECH509)	