

Spring 2013 Schedule

Date	Day	Reading	Topics
1/15/13	Tuesday	Chapter 1	Introduction
1/17	Thursday		Feedback control
1/18	Friday	Chapter 2	Mathematical modeling, simulation using MATLAB (TA)
1/22	Tuesday		Dynamic responses
1/24	Thursday	Chapter 3	Laplace transforms
1/25	Friday	Chapter 4	Transfer functions, problem-solving (dynamic responses)
1/29	Tuesday		First order systems
1/31	Thursday	Chapter 5	Second order systems
2/1	Friday	Chapter 6	Complex processes, open-loop Simulink introduction
2/5	Tuesday	Chapter 7	Fitting models to data
2/7	Thursday		Exam Review
2/8	Friday		Hour Exam #1 (Chapters 1-5)
2/12	Tuesday		Fitting models to data
2/14	Thursday	Chapter 8	PID controllers
2/15	Friday	Chapter 9	Instrumentation and valves, step response fitting
2/19	Tuesday	Chapter 11	Closed loop transfer function
2/21	Thursday		Block diagrams, Stability
2/22	Friday	Chapter 12	Control loop analysis, closed-loop Simulink
2/26	Tuesday	Chapter 12	Controller tuning, PID controller tuner
2/28	Thursday	Chapter 15	Feedforward control
3/1	Friday		Hour Exam #2 (Chapters 6-9,11)
3/5	Tuesday		Air heater demonstration
3/7	Thursday		Feedforward control
3/8	Friday	Chapter 16	Advanced control strategies, Simulink – cascade control
3/19	Tuesday		Advanced control strategies
3/21	Thursday	Chapter 18	Multivariable control
3/22	Friday		Hour Exam #3 (Chapters 12, 15, 16)
3/26	Tuesday		Multivariable control
3/28	Thursday	Chapter 10	Safety and Process Control
3/29	Friday	Chapter 19	Real-time optimization, Simulink – multivariable control
4/2	Tuesday	Appendix A	Computer control
4/4	Thursday	Final exam review	
4/5	Friday		Final Exam