

Course Schedule
Chemical Engineering 361
Spring 2014

Date	Lecture Topic	Reading	Due
1/21	Introduction	Lecture notes	
1/23	Linear algebra	Sections 7.1–7.4	
1/28	Linear algebraic systems I	Sections 7.5–7.8	
1/30	Linear algebraic systems II	Section 20.4	Written #1
2/4	The eigenvalue problem	Sections 7.9, 8.1–8.4	
2/6	Matlab: Linear algebraic systems	Lecture notes	Matlab #1
2/11	Nonlinear algebraic systems	Sections 19.1–19.2	
2/13	Matlab: Nonlinear algebraic systems	Lecture notes	Written #2
2/18	NO CLASS		
2/20	ODE model formulation	Sections 1.1–1.2	
2/25	Linear ODE systems	Sections 4.2–4.3	
2/27	Nonlinear system stability	Section 4.5	Written #3
3/4	EXAM #1		
3/6	Numerical integration & differentiation	Section 19.3–19.5	
3/11	Numerical solution of ODEs	Section 21.1–21.2	
3/13	Numerical solution of ODE systems	Sections 21.3	Written #4
3/18, 3/20	NO CLASS		
3/25	Matlab: Nonlinear ODEs		
3/27	Differential-algebraic systems	Lecture notes	Matlab #2
4/1	Matlab: DAE systems		
4/3	EXAM #2		
4/8	Probability distributions	Sections 24.3, 24.5, 24.6	
4/10	Common probability distributions	Sections 24.7–24.8	Project topic
4/15	Confidence intervals	Sections 25.1–25.3	
4/17	Hypothesis testing	Sections 25.4, 25.5, 25.7	Written #5
4/22	Regression and correlation	Sections 25.9	
4/24	Experimental design	Lecture notes	Matlab #3
4/29	Matlab: Statistics		Written project