

**Course Schedule**  
**Chemical Engineering 361**  
**Spring 2014**

<b>Date</b>	<b>Lecture Topic</b>	<b>Reading</b>	<b>Due</b>
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	
2/4	The eigenvalue problem	Sections 7.9, 8.1–8.4	
2/6	Matlab: Linear algebraic systems	Lecture notes	
2/11	Nonlinear algebraic systems	Sections 19.1–19.2	
2/13	*Matlab: Nonlinear algebraic systems	Lecture notes	
2/18	NO CLASS - Monday schedule		
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	
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	
3/18, 3/20	NO CLASS		
3/25	*Matlab: Nonlinear ODEs		
3/27	Differential-algebraic systems	Lecture notes	
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	
4/15	*Confidence intervals	Sections 25.1–25.3	
4/17	*Hypothesis testing	Sections 25.4, 25.5, 25.7	
4/22	*Regression and correlation	Sections 25.9	
4/24	*Experimental design	Lecture notes	
4/29	Matlab: Statistics		