

**Schedule of Lectures for ChE 90
Spring 2013**

Lecture/Disc.	Date	Topic	Lecturer
L1-1	Jan. 22	Introduction to Energy Use	A. T. Bell
D1	Jan. 23	---	---
L1-2	Jan. 24	Mass Balances	A. T. Bell
L2-1	Jan. 29	Illustration of Mass Balances	A. T. Bell [‡]
D2	Jan. 30	Discussion - Mass Balances	N. Su
L2-2	Jan. 31	Types of Energy and Energy Balances	A. T. Bell
L3-1	Feb. 5	Energy Balances and Energy Efficiency	A. T. Bell [‡]
D3	Feb. 6	Discussion of Energy Balances	N. Su
L3-2	Feb. 7	U.S. Energy Sources	A. T. Bell
L4-1	Feb. 12	Electrical Power Generation and Distribution	A. T. Bell [‡]
D4	Feb. 13	Discussion - Lifetime of Finite Energy Sources	N. Su
L4-2	Feb. 14	Energy Demand for Transportation	A. T. Bell
L5-1	Feb. 19	CO ₂ Emissions and Separation	B. Smit [‡]
D5	Feb. 20	Discussion - Energy Demand for Transportation	N. Su
L5-2	Feb. 21	CO ₂ Sequestration	C. Oldenburg
L6-1	Feb. 26	Discussion of CO ₂ Emissions and Separation	N. Su [‡]
D6	Feb. 27	Discussion of CO ₂ Sequestration	N. Su
L6-2	Feb. 28	Conversion of Biomass	P. Bryan
L7-1	March 5	Biological Conversion of Biomass	H. Blanch [‡]
D7	March 6	Discussion of Biomass Conversion	N. Su
L7-2	March 7	Building Efficiency	S. Selkowitz
L8-1	March 12	Nuclear Energy Generation of Electricity	J. Vujic [‡]
D8	March 13	Discussion of Electrical Energy Generation	N. Su
L8-2	March 14	Geothermal Generation of Electricity	M. Kennedy
L9-1	March 19	Wind Generation of Electricity	TBA [‡]
D9	March 20	Discussion of Wind Generation of Electricity	N. Su
L9-2	March 21	Achieving California's GHG Reduction Goals	H. Youngs
-	March 25-29	Spring Break	

Lecture/Disc.	Date	Topic	Lecturer
L10-1	April 2	Solar Energy Generation of Electricity	J. Urban [‡]
D10	April 3	Discussion of Solar Energy Generation	N. Su
L10-2	April 4	Solar Energy Generation of Electricity	J. Urban
L11-1	April 9	Distribution of Electrical Power	A. Piette [‡]
D11	April 10	Discussion of Electrical Power Distribution	N. Su
L11-2	April 11	Distribution of Electrical Power	A. Piette
L12-1	April 16	Storage of Electrical Energy	V. Srinivasan [‡]
D12	April 17	Discussion of Electrical Power Storage	N. Su
L12-2	April 18	Storage of Electrical Energy	V. Srinivasan
L13-1	April 23	Societal Issues	A. T. Bell [‡]
D13	April 24	Storage of Electrical Power	N. Su
L13-2	April 25	Development of Shale Gas and Oil Reserves	K. Gerdes
D14-1	April 30	Project Presentations	
D14-2	May 1	Project Presentations	
D14-3	May 2	Project Presentations	