Date	Topic(s)	Chapter	Instructor
Block 1: What are the structures of proteins?			
12-Jan	Basic protein structure concepts and common motifs	2-Jan	Schaller
15-Jan	Common protein domain structures	5-Mar	Schaller
19-Jan	Protein structures that interact with DNA	10-Aug	Ma
22-Jan	Intrinsically disordered proteins	Literature	Smith
26-Jan	Energy landscapes and protein folding (or not?)	6	Schaller
29-Jan	Learning, predicting, and engineering protein structures	17-18	Shiemke
2-Feb	Poster session for structural portion of projects	-	Gunther
Block 2: How do we study proteins			
5-Feb	Exciting and measuring electronic transitions	H1, 3	Gunther
9-Feb	First examination covering Block 1	-	Faculty
12-Feb	What happens to an excited electronic state?	H3	Gunther
16-Feb	Microscopic protein dynamics (single molecule)	-	Smith
19-Feb	Macroscopic protein dynamics (molecular ensembles)	H3, 7	Gunther
23-Feb	Mass spectrometric approaches to protein structure and dynamics	-	Gunther
26-Feb	How do we identify protein binding partners?	H8, lit	Ma
1-Mar	How do we characterize protein binding interactions?	Literature	Smith
4-Mar	Van Liere Research Convocation – No Class	-	-
8-Mar	Fluorescent techniques to characterize binding interactions	H3	Smith/Schaller
11-Mar	Förster resonance energy transfer	H3	Schaller
15-Mar	Practical protein information (purification, assay, etc.)	Handout	Fagone
18-Mar	Practical protein information, continued	Handouts	Fagone
Block 3: How do proteins work?			
18-Mar	Project part II: term paper about techniques to study chosen protein due	-	-
3/22 and 3/24	SPRING BREAK	-	-
29-Mar	EXAM 2, covering block 2	-	Faculty
1-Apr	Basic kinetic principles	Handouts	Gunther
5-Apr	Kinetic principles continued and kinetic isotope effects	Handouts	Gunther
8-Apr	Mechanisms: nucleophiles, acids, bases, electrons, etc.	Handouts	Gunther
12-Apr	How do proteins really use energy?	Literature	Smith
15-Apr	Life in a membrane	Literature	Shiemke
19-Apr	Example: Protease mechanisms	11	Smith

22-Apr	Example: Nitric Oxide Synthases (2-2:50 PM)	Literature	Shiemke
22-Apr	Student mechanism presentation (3-3:50 PM)	-	Gunther
26-Apr	Student mechanism presentations	-	Gunther
28-Apr	Student mechanism presentations	-	Gunther
3-May	Exam 3 covering the material in block 3	-	Faculty and Students

Labeled chapters are in the textbook, Branden and Tooze (2nd edition). Reading referenced as "H#" is the relevant chapter in the supplemental text, "Biological Spectroscopy" by Hammes.