TOPIC 1: PROPERTIES OF ELEMENTS, ISOTOPES & COMPOUNDS

8/28  L1  Organizational Meeting; ELEMENTS & ISOTOPES (Ch 1)
8/30  L2  THE CHARACTER OF ATOMS  (Ch 5)
  9/ 1  L3  Lab Demonstration: Spectra
  9/ 4  L4  THE SPECTRA OF HYDROGEN: A QUANTITATIVE  ATOMIC MODEL (Ch 5)
  9/ 6  L5  MOSELEY'S LAW & INTRODUCTION TO WAVE MECHANICS (Ch 5)
  9/ 8  L6  THE PERIODIC TABLE & ATOMIC WEIGHTS (Ch 6)
  9/11 L7  Anne Hofmeister Guest Lecture
  9/13 L8  THE PERIODIC TABLE & ATOMIC WEIGHTS, Contd. (Ch 6)
  9/15 L9  PERIODIC PROPERTIES AND CHEMICAL BONDS (Ch 7)
  9/18 L10 CHEMICAL BONDS & IONIC CRYSTALS (Ch 8)
  9/22 L11 SILICATES & IONIC SUBSTITUTION (Ch 8)
  9/25 L12 Recitation
  9/27 L13 EXAM #1

TOPIC 2: THERMODYNAMICS AND STABLE ISOTOPE HYDROLOGY

  9/29 L14  EQUILIBRIA (Ch. 9)
  10/ 2 L15  UNITS AND SOURCES OF ENERGY (Ch 11)
  10/ 4 L16  LAWS OF THERMODYNAMICS  (Ch 11)
  10/ 6 L17  FUNDAMENTAL QUANTITIES; MAXWELL RELATIONS (&Q2)
  10/ 9 L18  GASES, ADIABATS & ISOCHORES (Ch 11)
  10/11 L19  ATMOSPHERE
  10/13 L20  PHASE DIAGRAMS
  10/16  FALL BREAK- No Class
  10/18 L21  Nature of Isotopes, Fractionation, Measurements
  10/20 L22  D & 18O in Natural Waters; Meteoric Waters (Ch 17)
  10/23 L23  Rayleigh Fractionation, Paleowaters, Ice Cores, Climatology
  10/25 L24  Springs, Streamflow & Groundwater
  10/27 L25  River Chemistry; Formation Waters
  10/30 L26  EXAM II
TOPIC 3: COSMOCHEMISTRY AND ISOTOPE GEOLOGY

11/1  L27  DISTRIBUTION OF MATTER IN THE COSMOS (Ch 2)
11/3  L28  ASTRONOMICAL DISTANCE, GALACTIC PROPERTIES
11/6  L29  THERMODYNAMIC COSMOLOGY
11/8  L30  STELLAR CHARACTERISTICS & 'COSMIC' ABUNDANCES (Ch 2)
11/10 L31  STELLAR SPECTRA & EVOLUTION (Ch 2)
11/13 L32  NUCLEAR REACTIONS, BINDING ENERGY, & NUCLEOSYNTHESIS (Ch 2)
11/15 L33  SOLAR SYSTEM: ORBITAL & PHYSICAL CHARACTERISTICS (Ch 3)
11/17 L34  Anne Hofmeister Guest Lecture
11/20 L35  RADIOACTIVITY & RADIONUCLIDES (Ch 16)
11/22  Thanksgiving Holiday
11/24  Thanksgiving Holiday
11/27 L36  INTRODUCTION TO RADIOACTIVE DECAY (Ch 16)
11/29 L37  K-Ar & Rb/Sr GEOCHRONOLOGY (Ch 16)
12/1  L38  UTh/Pb GEOCHRONOLOGY; METEORITES (Ch. 16)
12/4  L39  AGE OF TERRESTRIAL ROCKS, METEORITES (Ch 16)
12/6  L40  LUNAR METEORITES (Ch 1)
12/8  L41  Last Class

Exam III  12/20  1-3 PM   Room 102