Lab every Monday or Wednesday from 1:30 pm until completed. SEC Rm 027A
Lecture/Discussion every Thursday 4:30-5:20 pm, Anderson 309. Attendance required.
Thursday, January 18 - Orientation (all students - MANDATORY), Anderson 309.
All scheduling subject to change based on snow days/cancellations.

**Unit I. Molecular Biology: Cloning, Transformation, Plasmid Isolation, Restriction Enzyme Analysis**

Lectures (Anderson 309): 1/25, 2/1, 2/08

1/22, 1/24  Introduction to Lab Techniques; Construction of Recombinant Plasmids
1/29, 1/31  Transformation of *E. coli* with Recombinant Plasmids
2/5, 2/7    Isolation of Plasmid DNA from Transformants
2/12, 2/14  Restriction Enzyme Analysis of Plasmid DNA

**Unit II. PCR and Computer Assisted Analysis of Nucleic Acid and Protein Sequences**

Lecture (Anderson 309): 2/15
(NOTE: Thurs 2/22 is a Tufts Monday!!!)

2/22, 2/21  PCR (Thurs 2/22 is when the Monday section will meet)
2/26, 2/28  Bioinformatics analysis

**Unit III. Recombinant Protein Expression and Immunochemical Analyses**

Lectures (Anderson 309): 3/1, 3/8, 3/15

3/5, 3/7    IPTG induction of β-galactosidase
3/12, 3/14  Gel electrophoresis and Western blotting to detect expressed products; protein quantitation
3/26, 3/28  Western blotting, continued

**Unit IV. Protein Biochemistry: Principles of Enzyme Purification and Analysis**

Lectures (Anderson 309): 3/29, 4/5, 4/12, 4/19 & 4/26 (optional)

4/2, 4/4    β-galactosidase: Chromatography and enzyme assay
4/9, 4/11   β-galactosidase: Gel electrophoresis and total protein assay