Lab every Monday or Wednesday from 1:30 pm until completed. Barnum 001
Lecture/Discussion every Thursday 3:00-3:50 pm, Pearson Hall, Room 106. Attendance required.
Thursday, January 21 - Orientation (all students), Pearson 106.

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

Lectures (Pearson 106): 1/28, 2/4, 2/11

1/25, 1/27 Introduction to Lab Techniques; Construction of Recombinant Plasmids
2/1, 2/3 Transformation of *E. coli* with Recombinant Plasmids
2/8, 2/10 Isolation of Plasmid DNA from Transformants
2/18, 2/17 Restriction Enzyme Analysis of Plasmid DNA

**Note: Thursday, 2/18 is a Tufts Monday!!**

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

Lecture (Pearson 106): 2/25

(Note: Thurs 2/18 is a Tufts Monday!!!)

2/22, 2/24 PCR

2/29, 3/2 Bioinformatics analysis *(Mark Lab (Mon) or ERC Rm 223 (Wed) at Tisch Library, not Barnum 001)*

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


3/7, 3/9 IPTG induction of β-galactosidase

3/14, 3/16 Gel electrophoresis and Western blotting to detect expressed products; protein quantitation

3/28, 3/30 Western blotting, continued

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


4/4, 4/6 β-galactosidase: Chromatography and enzyme assay

4/11, 4/13 β-galactosidase: Gel electrophoresis and total protein assay