

BioTech 42A: Bio-Techniques I - Agenda

Week 1: Online Sessions			
Session	Format	Hours	Topics
1	Online Lecture	3	Course Introduction: Basics of Cell Culture
2	Online Lecture	3	Lab Safety. Microscopes. Buffers
3	Online Lecture	3	Nucleic Acids & Recombinant Technology
4	Online Lecture	3	Enzymology & Molecular Cloning
5	Online Lecture	3	PCR: Principles, Optimization, & Variations
Week 2: Online Sessions			
Session	Format	Hours	Topics
6	Online Lecture	3	Introduction to Immunology
7	Online Lecture	3	Proteomics
8	Online Lecture	3	Hybridization. Probe Labeling including ISH
9	Online Lecture	3	Protein informatics
10	Online Lecture	3	Genetic Engineering & CRISPR Stem Cells
Week 3: Lab Sessions			
Session	Format	Hours	Topics
11	Lab	8	Introduction to Laboratory Research, Microscopy, and Cell Culture
12	Lab	8	Bacterial Transformation
13	Lab	8	PCR (Simple and Real Time)
14	Lab	8	Western blot ; ELISA
15	Lab/Tutorial	8	Bioinformatics Strategies (BLAST & ENTREZ)

Please Note: Weeks 1 and 2 are online

Week 3 will be held in Lab at the FAES Training Center, building 60, room 60, at the National Institutes of Health main campus in Bethesda, MD from 9am to 5pm.