<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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| Week 1 | Introduction, (review of Classical Genetics and Meiosis – handout)  
Risk and Pseudoscience  
Chapter 1: Initial Concepts  
Chapter 2: Molecular Nature of Genes  
Chapter 3: Introduction to Gene Function |
| Week 2 | Case Study 1: Gender  
Chapter 4: Molecular Cloning (part 1)  
Chapter 4 – Part 2  
Notes on Genetic Engineering  
Chapter 5 – Molecular Tools (Part 1) |
| Week 3 | Chapter 5 – Part 2  
Chapter 5 – Part 3  
CRISPR-Cas9  
Chapter 6 – Mechanisms of transcription (Part 1)  
Chapter 6 – Part 2  
Chapter 6 – Part 3 |
| Week 4 | Chapter 7 – Operons (Part 1)  
Chapter 7 – Part 2  
Chapter 7 – Part 3  
Chapter 7 – Part 4 |
| **EXAM 1: June 10th (second segment starts; Dr. Lee)** |
| **PRESENTATIONS (don’t forget you will need to sign up)**  
Presentations will go from Week 8 to Week 11 as needed. |
| Week 5 | Chapter 8 & 9: DNA Protein Interactions  
Ascent of Genetics |
| Week 6 | Chapter 10: Eukaryotic Transcription  
Topics in Genomics |
| Week 7 | Chapter 11: Eukaryotic General Transcription Factors  
Topics in Genomics |
| Week 8 | Chapter 12: Eukaryotic Transcription Activators  
Chapter 13: Chromatin Structure  
Topics in Genomics |
EXAM 2: July 8th (Third segment starts; Dr. De)

Week 9  Chapter 14: Posttranslational modifications
       RNA processing I, RNA splicing, Introns, Exons

Week 10  Chapter 15: RNA processing II
       CAP, Polyadenylation

      Chapter 20: DNA replication I:
       Mechanism, Enzymology, Mutation, and Repair

Week 11  Chapter 21: DNA replication II
       Detailed mechanism, Termination

Week 12  Chapter 16: Translation
       Initiation

       Chapter 17: Translation
       Elongation, Termination

       Chapter 18: Translation
       Ribosome

       Epigenetics

EXAM 3: August 5th

Please follow the schedule (for chapter, lecture videos, exams, etc.) as posted on CANVAS. This syllabus just provides an outline of the course.