Week 1:
Mon Sept 7  Lecture 1: Introduction to Cells and Life
          Reading: Chapter 1
Wed Sept 9  Lecture 2: Macromolecules
          Reading: Chapter 2 (page 50-end)
Fri Sept 11 Lecture 3: DNA & Chromosome structure
          Reading: Chapter 5
          Homework 1 due (Introduction & Macromolecules)

Week 2:
Mon Sept 14 Lecture 4: DNA replication
          Reading: Chapter 6 (through page 210)
Wed Sept 16 Lecture 5: DNA repair & recombination
          Reading: rest of Chapter 6
Fri Sept 18  Problem session 1: DNA structure & replication
          Homework 2 due (DNA structure & replication)

Week 3:
Mon Sept 21 Lecture 6: Transcription and splicing:
          Reading: Chapter 7 (up to page 238)
Wed Sept 23 Lecture 7: Translation and the Genetic Code
          Reading: rest of Chapter 7
Fri Sept 25  Problem session 2: Central dogma and informational flow & processing
          Homework 3 due (DNA repair/recombination & Transcription & translation)

Week 4:
Mon Sept 28 Lecture 8: Gene Regulation I: Transcriptional control
          Reading: Chapter 8 (up to page 280)
Wed Sept 30  Exam 1: Lectures 1-7

Fri Oct 2  Lecture 9: Gene Regulation II: Post-transcriptional control
          Reading: rest of Chapter 8

Week 5:
Mon Oct 5  Lecture 10: Evolution of Genes & Genomes
          Reading: Chapter 9
          Homework 4 due (Gene regulation/Evolution of Genes & Genomes)
Wed Oct 7  Lecture 11: Recombinant DNA technology
          Reading: Chapter 10
Fri Oct 9  \textit{Problem session 3: Gene regulation \& rDNA methodology}  
\textit{Homework 5 due (rDNA technology)}

\textbf{Week 6:}
Mon Oct 12  Lecture 12: Protein Structure  
Reading: Chapter 4 (up to page 141)
Wed Oct 14  Lecture 13: Protein Function  
Reading: rest of Chapter 4
Fri Oct 16  \textit{Problem session 4: Protein structure-function}  
\textit{Homework 6 (Proteins)}

\textbf{Week 7:}
Mon Oct 19  Lecture 14: Membrane structure  
Reading: Chapter 11 (up to page 369)
Wed Oct 21  \textbf{Exam 2: Lectures 8-13}
Fri Oct 23  Lecture 15: Membrane proteins  
Reading: rest of Chapter 11  
\textit{Homework 7 (Membrane structure)}

\textbf{Week 8:}
Mon Oct 26  No class: Fall break
Wed Oct 28  Lecture 16: Membrane Transport  
Reading: Chapter 12 (up to page 396)
Fri Oct 30  \textit{Problem session 5: Membrane structure \& function}  
\textit{Homework 8 (Membrane proteins and function)}

\textbf{Week 9:}
Mon Nov 2  Lecture 17: Ion channels and Membrane potential  
Reading: rest of Chapter 12
Wed Nov 4  Lecture 18: Metabolism I: Glycolysis \& TCA cycle  
Reading: Chapter 13
Fri Nov 6  \textit{Problem session 6: Membrane function \& metabolism}

\textbf{Week 10:}
Mon Nov 9  Lecture 19: Metabolism II: Respiration  
Reading: Chapter 14 (up to page 469)
Wed Nov 11  Lecture 20: Metabolism III: Photosynthesis
Reading: rest of Chapter 14

Fri Nov 13  Problem session 7: Principles of Metabolic pathways
Homework 9 (Metabolism I/II/III)

Week 11:
Mon Nov 16  Lecture 21: Protein & Vesicular Transport I
           Reading: Chapter 15

Wed Nov 18  Exam 3: Lectures 14-20

Fri Nov 20  Lecture 22: Protein & Vesicular Transport II
           Reading: Chapter 15
           Homework 10 (Protein & Vesicular Transport)

Week 12:
Mon Nov 23  Lecture 23: Cell signaling pathways I
           Reading: Chapter 16 (up to page 539)

Wed Nov 25  No class: Thanksgiving

Fri Nov 27  No class: Thanksgiving

Week 13:
Mon Nov 30  Lecture 24: Cell signaling pathways II
           Reading: rest of Chapter 16
           Homework 11 (Cell Signaling)

Wed Dec 2   Lecture 25: Cell cytoskeleton
           Reading: Chapter 17

Fri Dec 4   Problem session 8: Cell biology core theory
           Homework 12 (Cell cytoskeleton)

Week 14:
Mon Dec 7   Lecture 26: The Cell cycle
           Reading: Chapter 18

Wed Dec 9   Lecture 27: Sex, meiosis, and genetics I
           Reading: Chapter 19

Fri Dec 11  Exam review sessions
           Homework 13 (Cell cycle)

Finals Week: Comprehensive Final Exam: all lectures and readings
Instructor Information
• Professor Donald Oliver
• Office: Shanklin 210A; Telephone: x3556; Email: doliver@wesleyan.edu
• Office hours: Monday 3-5 PM & Wednesday 2-4 PM or by appointment

Disabilities
Students with disabilities must register with Disabilities Services and discuss their situation with me by the end of add/drop so that appropriate arrangements can be made. Registration for Disabilities Services can be found at http://www.wesleyan.edu/studentaffairs/disabilities/index.html

Textbook
Available in bookstore; Also E-book version: garlandscience.com/ecb4-ebook ($50 rental)

Class Moodle site (sections 9 & 10)
• Instructor & TA information
• Textbook
• Syllabus
• Powerpoint lectures
• Homework problems & answers
• Friday problems & answers
• Past exams and answers
• Exam Answer Key (After return of Exam)

Evaluation
• 3 In-class Exams: 60%
• Comprehensive Final Exam: 30%
• Homework: 10%
• Deadlines: Homework & Exams must be handed in or taken on time

Re-grading of Exams
If you want a Exam question(s) regraded, write a note briefly stating your position for each of the answers being questioned and attach it to your exam. Give it to the Professor immediately before or after class or put it in his mailbox (in the MB&B Office, Hall-Atwater room 242). The Professor will regrade and return it: either before or after class or mail it to your WES mailbox. Requests for regrading must be made within ONE WEEK of the return of the exam. (with the exception of your final exam, which must be made within 24 hours of the return of the exam).

Learning Philosophy
• Science as a language: vocabulary, repetition, keep up
• What to learn: Both forest and trees, but not weeds
• Self-learning & self discipline: What instructor can and cannot do for you
**Frequently Asked Questions**

- Difference between MB&B 181 and BIOL 181: none
- Taking BIO 191 lab concurrently: strongly advised
- Placing out of BIO 181: Not advised. Rare. Contact Professor Michelle Murolo (mmurolo@wesleyan.edu) for the placement exam information