

BC367

BC367 - Biochemistry of the Cell I

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No blog posts found.

Weekly class assignments

Laboratory

[BC367 syllabus](#)

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[Examinations](#)

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BC367 Learning Goals

1. To learn the fundamental chemistry and biochemistry of major classes of biomolecules, including amino acids and proteins, sugars and polysaccharides, nucleotides and nucleic acids, and lipids.
 2. To understand how chemical reactivity, thermodynamics, and kinetics are responsible for life.
 3. To sharpen problem-solving skills of both a qualitative and quantitative nature and to solve problems that involve the integration and synthesis of new knowledge.
 4. To enhance written and oral communication skills and build confidence in oral expression in a group setting.
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Approximate Lecture and Discussion Schedule

| Week of: | Probable topic: | Textbook chapter(s): | Discussion materials: |
|----------|-----------------------------------|----------------------|--|
| 9/5 | Living matter / aqueous chemistry | 1, 2 | Problem Set #1 |
| 9/10 | Amino acids | 3 | Problem Set #2 |
| 9/17 | Peptides and proteins | 3-4 | Problem Set #3 BLAST homepage |
| 9/24 | Protein structure | 3-4 | Problem Set #4 |
| 10/1 | Protein dynamics | 5 | (no discussion materials this week) |

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|-------|---|------|-------------------------------------|
| 10/8 | Enzymes and enzyme kinetics | 6 | Problem Set #5 |
| 10/15 | Enzyme inhibition | 6 | Problem Set #6 |
| 10/22 | Enzyme mechanisms | 6 | Problem Set #7 |
| 10/29 | Sugars, polysaccharides, and glycobiology | 7 | Problem Set #8 |
| 11/5 | Nucleotides and nucleic acid structure | 8 | Problem Set #9 |
| 11/12 | Nucleic acid chemistry and function | 8 | (no discussion materials this week) |
| 11/19 | DNA technology and lipid chemistry | 9-10 | (no discussion materials this week) |
| 11/26 | Storage and structural lipids | 10 | Problem Set #10 |
| 12/3 | Lipid biology | 10 | Problem Set #11 |

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