



# STARK STATE COLLEGE

## GENERAL SYLLABUS

### Course Information

**Course Name:** General, Organic, and Biological Chemistry  
**Course Number:** CHM123

### Required Materials

**Textbook(s):** Text Book and Mastering Chemistry Online Homework (CHM123): Instant Access: *An Introduction to General, Organic, and Biological Chemistry 14<sup>th</sup> ed.*, Karen Timberlake, Pearson Publishing, 2025. See “How will I read the textbook” in Class Policies. **Lab Manual (CHM123):** *Laboratory Experiments for General, Organic, and Biochemistry*, 2025-2026, Stark State College. Only available in SSC bookstore.

**Required Readings:** Text Book and Lab Manual

**Additional Materials:** **Lab Safety kit** (Splash-proof Safety Goggles+Lab coat+plastic bag). **All three of these items will be needed during lab sessions. Scientific Calculator. Cell phone** that accepts calls and text messages for multifactor authentication. **Cam Scanner or Scan Genius app-** for scanning and converting documents to pdf.

### Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

#### 16 Week Calendar

Week	Chapter/Topic/Lab
1	Chapter 1 Chemistry in Our Lives Chapter 2 Chemistry and Measurement Lab-Experiment 1
2	Chapter 2 Chemistry and Measurement Chapter 3 Matter and Energy Lab-Experiment 2
3	Chapter 3 Matter and Energy Chapter 4 Atoms and Elements Lab- Experiment 3
4	Chapter 6 Ionic and Molecular Compounds Lab- Experiment 4
5	<b>Exam 1 (Chapters 1-4, 6)</b> Chapter 7 Chemical Quantities and Reactions Chapter 8 Gases

Week	Chapter/Topic/Lab
	Lab-Experiment 5
6	Chapter 9 Solutions Chapter 10 Acids and Bases Lab-Experiment 6
7	Chapter 10 Acids and Bases and Equilibrium <b>Exam 2 (Chapters 7-10)</b> Lab-Experiment 7
8	Chapter 5 Nuclear Chemistry Chapter 11 Introduction to Organic Chemistry: Hydrocarbons Lab-Experiment 8
9	Chapter 12 Alcohols, Thiols, Ethers, Aldehydes and Ketone Chapter 13 Carbohydrates Lab-Experiment 9
10	Chapter 13 Carbohydrates Chapter 14 Carboxylic Acids, Esters, Amines, and Amides Lab-Experiment 10
11	Chapter 14 Carboxylic Acids, Esters, Amines, and Amides <b>Exam 3 (Chapters 11-14)</b> Lab-Experiment 11
12	Chapter 15 Lipids Lab-Experiment 12
13	Chapter 16 Amino Acids, Proteins, and Enzymes Lab-Experiment 13
14	Chapter 17 Nucleic Acids and Protein Synthesis Chapter 18 Metabolic Pathways Lab-Experiment 14
15	Chapter 18 Metabolic Pathways <b>Exam 4 (Chapters 15-18)</b>
16	<b>FINAL EXAM</b> (comprehensive)

#### 8 Week Calendar

Week	Chapter/Topic/Lab
1	Chapter 1 Chemistry in Our Lives Chapter 2 Chemistry and Measurement Chapter 3 Matter and Energy Chapter 4 Atoms and Elements Lab-Experiment 1 Lab-Experiment 2
2	Chapter 6 Ionic and Molecular Compounds <b>Exam 1 (Chapters 1-4, 6)</b> Lab- Experiment 3 Lab- Experiment 4
3	Chapter 7 Chemical Quantities and Reactions Chapter 8 Gases Chapter 9 Solutions Chapter 10 Acids and Bases Lab-Experiment 5 Lab-Experiment 6

4	<p>Chapter 5 Nuclear Chemistry  Chapter 11 Introduction to Organic Chemistry: Hydrocarbons  Chapter 12 Alcohols, Thiols, Ethers, Aldehydes and Ketone  <b>Exam 2 (Chapters 7-10)</b>  Lab-Experiment 7  Lab-Experiment 8</p>
5	<p>Chapter 13 Carbohydrates  Chapter 14 Carboxylic Acids, Esters, Amines, and Amides  Lab-Experiment 9  Lab-Experiment 10</p>
6	<p>Chapter 15 Lipids  Chapter 16 Amino Acids, Proteins, and Enzymes  <b>Exam 3 (Chapters 11-14)</b>  Lab-Experiment 11  Lab-Experiment 12</p>
7	<p>Chapter 17 Nucleic Acids and Protein Synthesis  Chapter 18 Metabolic Pathways  <b>Exam 4 (Chapters 15-18)</b>  Lab-Experiment 13  Lab-Experiment 14</p>
8	<p><b>FINAL EXAM</b> (comprehensive)</p>