MCAT General Chemistry - Core Concept Cheat Sheet

01: Introduction To General Chemistry in MCAT

Key MCAT Terms

**MCAT:** The Medical College Admissions Test is a standardized exam required to gain admission to medical school.

**MCAT Courses:** The new four-sections MCAT requires seven college courses – general chemistry, organic chemistry, biochemistry, biology, physics, psychology and sociology.

**Passage-Based Question:** A question relating to information in an accompanying passage. The answer may or may not be in the passage.

**Discrete Question:** A question that has a topic independent of a previous question or answers with four possible answer options.

**Test Sections:**
1. Chemical and physical foundations
2. Critical Analysis and Reasoning Skills
3. Biological and Biochemical Foundations
4. Psychological, Social and Biological foundations.

**General Chemistry:** MCAT requires students to take two semesters of college-level chemistry for pre-med.

**Computer-based Test:** MCAT is 100% to be taken on computer with on-screen tools and calculator provided.

MCAT Overview

**Registration**
- The MCAT is offered multiple times a year.
- Plan ahead six months before taking the exam.

**Scoring**
Four sectional scores and one total score with midpoint
- Chem/Phys Section: 118-132 (midpoint = 125)
- Critical/Reasoning: 118-132 (midpoint = 125)
- Bio/Biochem ~ 118-132 (midpoint = 125)
- Psy/Social ~ 118-132 (midpoint = 125)
- Composite Score: 472-528 (midpoint = 500)

**Test Day Schedule (4 sections 10-min break each)**
- Chem/Phys: 95 minutes, 59 questions.
- Critical/Reasoning: 90 minutes, 53 questions.
- Bio/Biochem: 95 minutes, 59 questions.
- Psy/Social: 95 minutes, 59 questions.

**MCAT Contents**

<table>
<thead>
<tr>
<th>MCAT</th>
<th>Chemical Physical</th>
<th>Biological</th>
<th>Psychological</th>
<th>Critical Reasoning</th>
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<tbody>
<tr>
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<td>Passage(44)</td>
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<td>Discrete(15)</td>
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**MCAT Science Questions**

- Passage-Based Questions (75%)
- Discrete Questions (25%)

**General Chemistry on the MCAT**

**Test Coverage**
General Chemistry questions are in two science sections. The contents required are from 2-semester general chemistry.

**Key Topics**
- Electronic Structure & Periodic Table
- Bonding
- Phases & Phase Equilibria
- Stoichiometry
- Thermodynamics & Thermochemistry
- Kinetics & Equilibrium
- Solutions
- Acids & Bases
- Electrochemistry

**MCAT Test-Preparation Strategies**

**Time Management**
- Adapt a more visual learning approach.
- Study one hour one chapter at a time.
- Set a study schedule and stick to it.

**Concept Mastery**
- Translate formulas into words to give them meaning.
- Generalize concepts to save memorization and time.
- Resolve any questions you have.

**Practice Problems**
- Solve problems in these tutorials.
- Solve relevant problems in General Chemistry textbooks.
- Solve problems in full-length practice exams.
- Solve problems on self-made mock exams.

**Review**
- Make cheat sheets.
- Use audio for learning-on-the-go.

**MCAT Test-Taking Strategies**

**Know The Test**
- Arrive early with the required ID.
- Familiarize the MCAT time format ahead of time.
- Memorize the instructions ahead of time.

**Plan Your Attack**
- Skim the section to budget time.
- Set approximately a 1-minute time limit per question.

**Build Focus**
- Go with your first instinct answer.
- If distracted, pull back to regain focus.
- Set the time limit per question and move on.

**Zoom In On The Answer**
- Think of the answer first, and then scan the choices.
- Beware the familiar and the absolute.
- Deal with similar or opposite answer choices.

**Guess The Right Way**
- Never leave a question blank. Guess instead.
- Eliminate incorrect answers to improve the odds.

How to Use This Cheat Sheet: These are the keys related to this topic. Try to read through it carefully twice then recite it out on a blank sheet of paper. Review it again before the exams.

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