01: Guide To MCAT Physics

**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 passage or other questions 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 Physics:** MCAT requires students to take two semesters of college-level physics for pre-med.

**Computer-based Test:** MCAT is 100% to be taken on computer with on-screen timer and but no calculator provided.

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**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.

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**MCAT Contents**

**MCAT**
(Medical College Admissions Test)

- **Chemical Physical**
  - Passage(44)
  - Discrete(15)
- **Biological**
  - Biochem(25)
  - GenChem(30%)
- **Psychological**
  - Social/Bio(56%)
  - Psychology(65%)
- **Critical Reasoning**
  - Passage(53)
  - Discrete(0)
- **GenChem**
  - Organic(15%)
  - Biochem(25%)
- **Biological**
  - GenChem(5%)
  - Organic(5%)
- **Psychological**
  - Social(30%)
  - Biology(5%)
- **Critical Reasoning**
  - Passage(53)
  - Discrete(0)

**MCAT Science Questions**

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

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**General Physics on the MCAT**

**Test Coverage**
Physics questions are in one science section – physical and chemical foundations. The contents required in the new MCAT are from 2-semester general physics at the college level, typically algebra-based physics. No calculus is required for this test.

**Key Topics**
- Translational Motion
- Force and Motion, Gravitation
- Equilibrium and Momentum
- Work and Energy
- Waves and Periodic Motion
- Sound
- Fluids and Solids
- Electrostatics and Electromagnetism
- Electronic Circuit Elements
- Light and Geometrical Optics
- Atomic and Nuclear Structure
- Basic Concepts and General Techniques

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**MCAT Test-Preparation Strategies**

**Time Management**
- Adapt a more visual learning approach.
- 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 physics 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 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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