The MCAT

Montana WWAMI Pre-Med Conference

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Medical College Admission Test

• Sponsored by the AAMC (www.aamc.org)
  – Association of American Medical Colleges
  – BEST source of information

• Purpose: To measure your knowledge and application of science concepts, problem solving skills, critical thinking, and the human condition.
MCAT is only one part of your admissions process.
Introduction

- **MCAT** has been used in the medical school admissions process for more than 60 years.
  - Provides mechanism to:
    - identify applicants more or less likely to experience academic success
    - Assess specific strengths and weaknesses
    - Interpret transcripts and letters of recommendation

- About 100,000 exams were administered in 2017.

- Fully computerized since Jan 2007

- Content review and update about every 15 years.
  - **MCAT** 2015 version released after several years of development (HHMI-AAMC collaborative report on competencies)
Desirable characteristics of medical students and physicians (holistic review):

– intellectual ability: not necessarily = to academic record
– commitment/service
– cultural sensitivity
– empathy/compassion
– capacity for growth
– emotional resilience
– strength of character
– interpersonal skills
– curiosity and engagement

Dr. Witzburg – Dean of Admission, BU
Medical schools would like...

- Ability to integrate info and large data sets
- Critical thinking
- Logical reasoning
- Scientific reasoning
- Verbal reasoning
- **Biology**
- Written/oral communication
- **Cell Biology**
- Integrity
- Professionalism
- **Biochemistry**
- **Organic Chem**
- Maturity
- Intellectual curiosity
- **Genetics**
# Test Structure

<table>
<thead>
<tr>
<th>Topic</th>
<th>Questions</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinee Agreement</td>
<td></td>
<td>4 min</td>
</tr>
<tr>
<td>Tutorial <em>(optional)</em></td>
<td></td>
<td>10 min</td>
</tr>
<tr>
<td>Chemical/Physical Foundations</td>
<td>59</td>
<td>95 min</td>
</tr>
<tr>
<td>Break <em>(optional)</em></td>
<td></td>
<td>10 min</td>
</tr>
<tr>
<td>Critical Analysis</td>
<td>53</td>
<td>90 min</td>
</tr>
<tr>
<td>Mid-Exam Break <em>(optional)</em></td>
<td></td>
<td>30 min</td>
</tr>
<tr>
<td>Biological/Biochemical Foundations</td>
<td>59</td>
<td>95 min</td>
</tr>
<tr>
<td>Break <em>(optional)</em></td>
<td></td>
<td>10 min</td>
</tr>
<tr>
<td>Psychological/Social Foundations</td>
<td>59</td>
<td>95 min</td>
</tr>
<tr>
<td>Void Question</td>
<td></td>
<td>3 min</td>
</tr>
<tr>
<td>Satisfaction Survey <em>(optional)</em></td>
<td></td>
<td>5 min</td>
</tr>
<tr>
<td>Total Content Time</td>
<td></td>
<td>6 hr 15 min</td>
</tr>
<tr>
<td>Total Seat Time</td>
<td></td>
<td>7 hr 30 min</td>
</tr>
</tbody>
</table>

~96 sec/Q (compared to 78 sec/Q on old exam)  Former seat time 5 hr 25 min
Chemical and Physical Foundations of Biological Systems

- First Semester Biochemistry 25%
- Introductory Biology 5%
- General Chemistry 30%
- Organic Chemistry 15%
- Introductory Physics 25%

- 59 questions
- 10 passage based sets of questions, 4-6 questions per set
- 15 independent questions
Critical Analysis and Reasoning Skills

- Humanities and Social Science Disciplines
  - Population health
  - Diverse cultures
  - Ethics
  - Philosophy

- No specific background information needed

- 53 questions
- 9 passages, 5-7 questions each
Biological and Biochemical Foundations of Living Systems

- First semester Biochemistry 25%
- Introductory Biology 65%
- General Chemistry 5%
- Organic Chemistry 5%

- 59 questions
- 10 passage based sets of questions, 4-6 questions per set
- 15 independent questions
Psychological, Social, and Biological Foundations of Behavior

- Introductory Psychology 65%
- Introductory Sociology 30%
- Introductory Biology 5%

- 59 questions
- 10 passage based sets of questions, 4-6 questions per set
- 15 independent questions
New Score Scale

MCAT2015 Total Score

- With centers at 125, section scores range from 118 to 132.
- The section scores sum to the total score.
- With its center at 500, the total score ranges from 472 to 528.
Preparing for the MCAT

• **Know your own style !!!**
  – group or solo
  – how long is an appropriate time for prep
  – do you need the motivation provided by outside sources (online or otherwise)

• **Use AAMC resources** -
  – free online information
  – *The Official Guide to the MCAT Exam*
  – Take at least one practice test online in similar conditions as you would the real test (i.e. at a library or in a classroom).

• **Use course notes, textbooks, exams, etc**
  – most of what you need to know you have already learned

• **Practice (aamc.org)** Practice Practice
Preparing for the MCAT

- Scientific competency involves fundamental principles in biology, gen chem, Ochem, physics, biochem.
  - Advanced sciences courses are not likely to improve your score.

- CARS passages contain all the information you need.
  - Participation in a variety of courses (humanities) will enhance performance - critical thinking and reasoning skills.

- Official Guide to the MCAT

- AAMC/Kahn Academy Partnership - over 1,100 content videos -- **FREE**

- AAMC Sample test, 2 practice tests & 3rd released Nov '17

- Other (how do you decide)
Registration

• First come-first served, plan ahead and note 2 step process
  – sites include Billings and Helena *** surveys, emails***

• Jan- June dates - registration opened Oct 18
• July- Sept dates - registration will probably open in Feb

• During registration, enter your name **EXACTLY** as it is on your (unexpired) ID

• Make sure your email address is correct and **current**

• If you need your score this year, don’t plan on a Sept date
  – Some schools don’t accept
  – If you have problems, there is no time to reschedule

• Scores are returned in 30-35 days
  – plan accordingly
**Costs (2017)**

- **Gold:** ~ month before exam
  - $315 Registration
  - $90 change fee
  - Cancellation refund ($155)

- **Silver:** 2 weeks before exam
  - $315 Registration
  - $150 change fee
  - NO refund

- **Bronze:** 1-2 weeks before exam
  - $370 Registration
  - NO change allowed
  - NO refund
Registration

• You can take up to 4 exams in two years or 3 in one year
  – In 2017, 12% of examinees took exam twice, 1% took three times

• You can only register for 1 at a time

• Score release
  – AAMC automatically - and all AMCAS participating schools to which you apply
  – Health Professions Advisor
  – Med-MAR - for disadvantaged or under-represented minorities only
  – MCAT recruiting service - schools may use info to send you recruiting materials.

• MCAT Testing History (THx) system
  – Your access to scores
  – May request score release to entities other than AAMC/AMCAS

• Fee assistance programs are available - Apply early !!
  – 300% of the poverty level
  – Good for two years, but only one application cycle
Test Day

- **Arrive early** -
  - eat well and pack nutritious snacks

- **If traveling:**
  - If not familiar with location, find ahead of time.
  - Stay locally, exams start at 8am and you will be exhausted by the end. Arrive 30 min early

- **ID - government issued with name, photo, expiration date.**
  - name must be EXACTLY as you registered! Palm scan this year

- **Items allowed in room:**
  - ear plugs, unopened (meds/food for medical purposes, must have accommodation)
  - scratch paper, ear covers, pencils will be provided

- **Clothing**
  - Plan. Room temp may vary - how can you be comfortable. Hats may need to be removed. Extra layer may not be allowed.

- **Use breaks to stay nourished, alert and energized.**
Exam tips

• Practice -
  – know the key strokes - there are changes this year - practice will be released in December

• Know the parts of the exam-
  – Non disclosure Agreement defaults to 'NO' -
    • you will not be allowed to take exam if you don’t answer.
  – Void exam question defaults to ‘YES’
    • your exam will be scored

• Have contact info with you
  – testing center phone #
  – AAMC (202) 828-0690, esp for ID issues

• Problems should be reported to Test Center Administrator and in writing to AAMC within 5 days.
To retake or not to retake?

- Discrepancy between GPA and MCAT score
  - or between practice and real MCAT scores
  - AAMC recommends NOT to retake if score is 28 or higher.

- Course work experience was inadequate
  - finish recommended course work and retake

- Technical problem
  - be very well prepared, know instructions, sign-in requirements, etc
  - sometimes things will still go wrong and the AAMC may or may not be able to assist.

- Personal disruption
  - illness
  - travel complications
  - etc
Evaluation of retake scores

- Schools vary in their approach to interpreting multiple scores

- The recommendation to schools last year was to consider the average

- But...
  - look at all and note improvements
  - consider only the most recent
  - average ALL scores
  - use only highest score
  - use highest score from each section
Questions ?