15

DAT exam

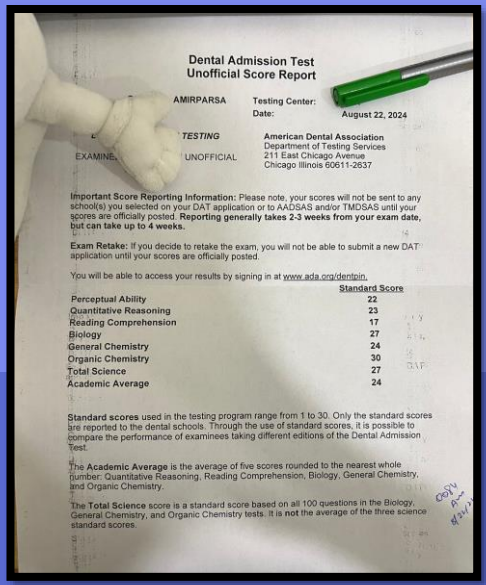
By Amirparsa Ghasemi

About me

Biological Science major, Junior at University of Maryland

Took DAT in August 2024

Academic Average **24**
Total Science **27**
Biology 27 – General Chemistry 24 – Organic Chemistry 30
Quantitative Reasoning 23 – Reading Comprehension 17



Dental Admission Test
Unofficial Score Report

AMIRPARSA
Testing Center:
Date: August 22, 2024

TESTING
UNOFFICIAL
EXAMINEE

American Dental Association
Department of Testing Services
211 East Chicago Avenue
Chicago Illinois 60611-2637

Important Score Reporting Information: Please note, your scores will not be sent to any school(s) you selected on your DAT application or to AADSAS and/or TMDSAS until your scores are officially posted. **Reporting generally takes 2-3 weeks from your exam date, but can take up to 4 weeks.**

Exam Retake: If you decide to retake the exam, you will not be able to submit a new DAT application until your scores are officially posted.

You will be able to access your results by signing in at www.ada.org/dentpin.

	Standard Score
Perceptual Ability	22
Quantitative Reasoning	23
Reading Comprehension	17
Biology	27
General Chemistry	24
Organic Chemistry	30
Total Science	27
Academic Average	24

Standard scores used in the testing program range from 1 to 30. Only the standard scores are reported to the dental schools. Through the use of standard scores, it is possible to compare the performance of examinees taking different editions of the Dental Admission Test.

The **Academic Average** is the average of five scores rounded to the nearest whole number: Quantitative Reasoning, Reading Comprehension, Biology, General Chemistry, and Organic Chemistry.

The **Total Science** score is a standard score based on all 100 questions in the Biology, General Chemistry, and Organic Chemistry tests. It is **not** the average of the three science standard scores.

What is DAT?

The Dental admission test you are required to take for any Dental School in USA or Canada

Computer based multiple choice exam, administrated by Prometric

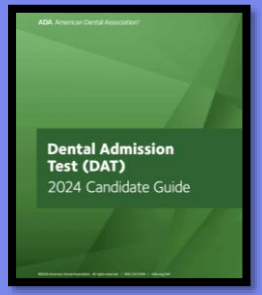
American DAT vs Canadian DAT

What is on American DAT?

Test	Testing Schedule	Number of Questions
		Optional tutorial--15 minutes
Survey of Natural Sciences	90 minutes	100
Perceptual Ability	60 minutes	90
		Optional scheduled break--30 minutes
Reading Comprehension	60 minutes	50
Quantitative Reasoning	45 minutes	40
		Optional post test survey--15 minutes
Total	5 hours 15 minutes	280

Detailed content

Can be found on **DAT Candidate Guide**



Biology detailed content:

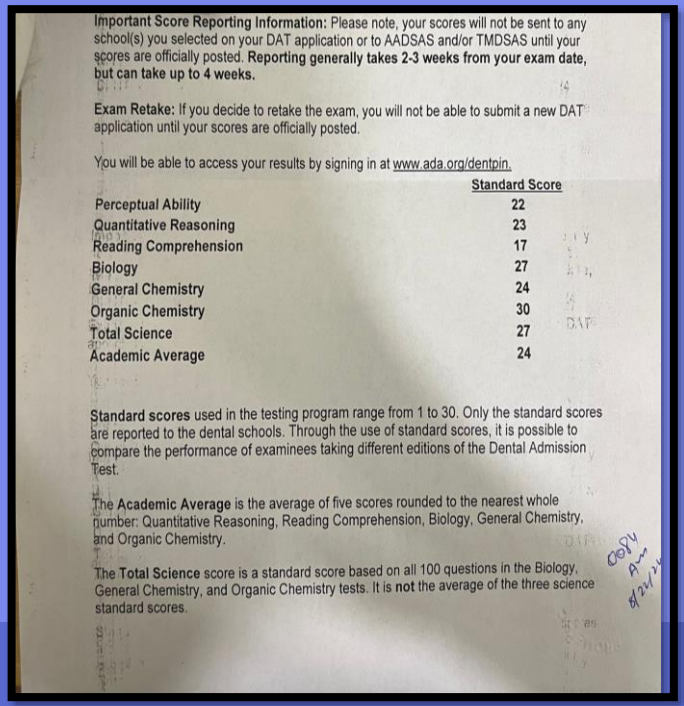
- You may not receive any question for any of the above sections! It varies test by test. Not equally distributed.
- For instance, you may get three questions on the reproductive system but none on the diversity of life!

Biology (40 items)

- Cell and Molecular Biology: cell metabolism (including photosynthesis, enzymology), cellular processes (including membrane transport, signal transduction), thermodynamics, mitosis/meiosis, cell structure and function, experimental cell biology, biomolecules, and integrated relationships
- Diversity of Life: viruses, Archaebacteria, Eubacteria, Fungi, Protista, Plantae, Animalia, and integrated relationships
- Structure and Function of Systems: integumentary, skeletal, muscular, circulatory, lymphatic/immune, digestive, respiratory, urinary, nervous/sensory, endocrine, reproductive, and integrated relationships
- Genetics: molecular genetics, human genetics, classical genetics, chromosomal genetics, genetic technology, developmental mechanisms, genomics, gene expression, epigenetics, and integrated relationships
- Evolution and Ecology: natural selection, population genetics/speciation, animal behavior, ecology (population, community, and ecosystem ecology), and integrated relationships

DAT Scoring

- Scored out of 30. A score of 20 or higher is considered competitive (scoring system changes starting March 1, 2025).
- Some schools have cutoffs (though most don't) for Academic Average and/or individual sections (15, 17, 18).
- An unofficial score will be provided at the end of the exam (The new scoring system will no longer provide scores instantly).



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What courses to take before the DAT?

Required

- General Biology I/II
- General chemistry I/II
- Organic chemistry I/II

Helpful, but not required

- Genetics
- Anatomy/physiology
- Microbiology
- Cell biology
- Pre-calculus & statistics

When should I take the DAT?

- You can take DAT anytime, no matter what year you are!
- Avoid taking DAT during your semester at college!

Gap year?

No:

a. **Summer before starting junior year**

- More flexible time, allows for 3 months of continuous study, room for retakes, and less busy with dental school applications
- Might not be as prepared and may not have completed some DAT prerequisites

b. **Summer before staring senior year** (the summer you are applying to dental school, preferably no later than June 30)

When should I take the DAT?

- You can take DAT anytime, no matter what year you are!
- Avoid taking DAT during your semester at college!

Gap year?

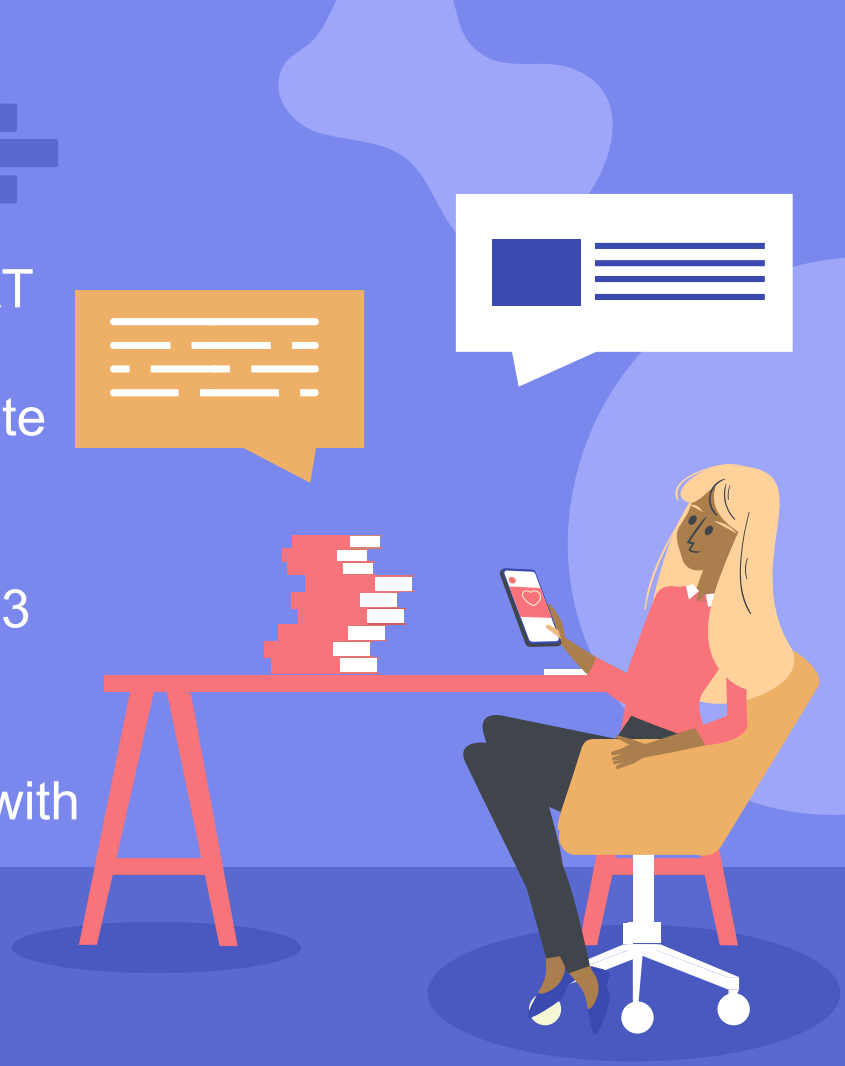
Yes:

a. **Last semester in you college if having a light course load (1 year gap)**

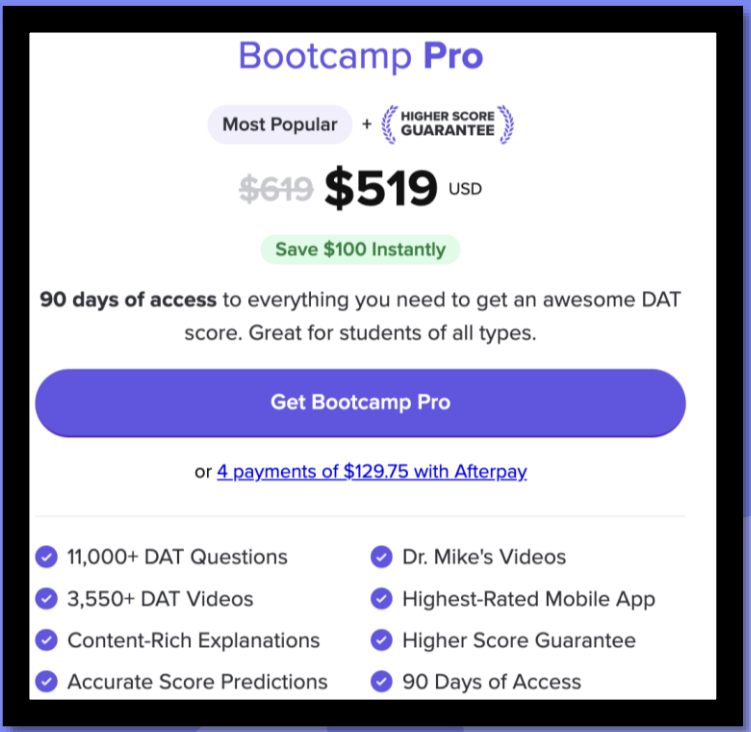
b. **Summer you are applying to dental school**

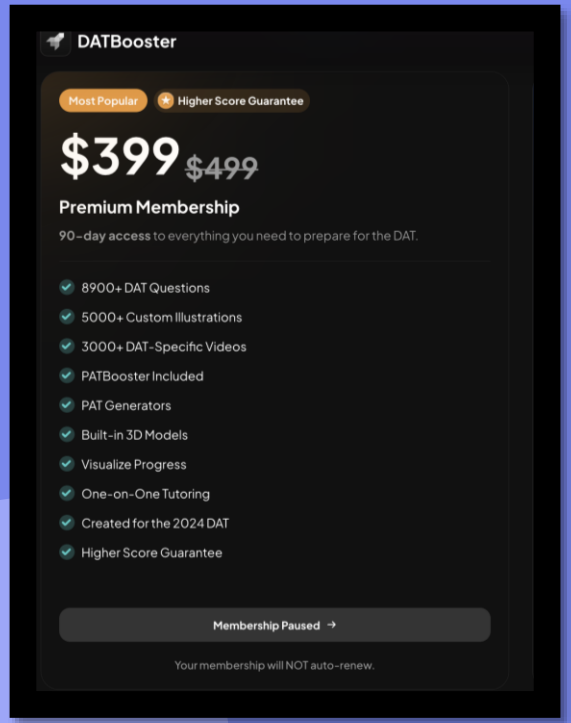
Where to start?

- Decide when you want to take the DAT
- Read Dental Admission Test Candidate Guide 2024 entirely!
- Register for DAT in advance (at least 3 month before the desired time)
- Get the resources and start studying with schedule!



Which membership should I get?





- Try to get a 10% discount from social media influencer
- If you are eligible for a DAT fee waiver or have received need-based financial grants, contact them — you might receive an even larger discount!

Other sources?

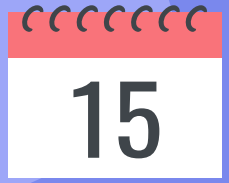
- 2024 DAT Destroyer, DAT Prep Books (Harder than actual DAT)

- ADA practice tests
- ADA free old DAT test

- YouTube videos (Helpful for PAT mostly!)
- Kaplan Prep Course, DATBooster | Crash Courses (**Expensive**, if you are short in time and don't know much!)

✓ Additional source

- Getting both Bootcamp and Booster, using Bootcamp as main source for learning phase and Booster as a supplement, particularly use it for practice tests.



What schedule to follow?

Depending on the membership you choose:

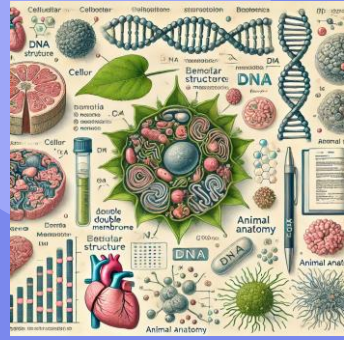
- **Dr. Ari's DAT Study Schedule, Bootcamp** (**77 days**, 153 days)
- **DATBooster Schedule** (8, **10**, 12 week)

These schedules cover all the content with their corresponding practice materials.
There are two phases:

a. **learning phase** (Readings, videos, questions banks)
b. **Examination phase** (Practice tests, full-length exams)

❖ Adjust the schedule as needed: include PAT questions daily, RC passages if needed daily, review days, and Anki flashcard days.

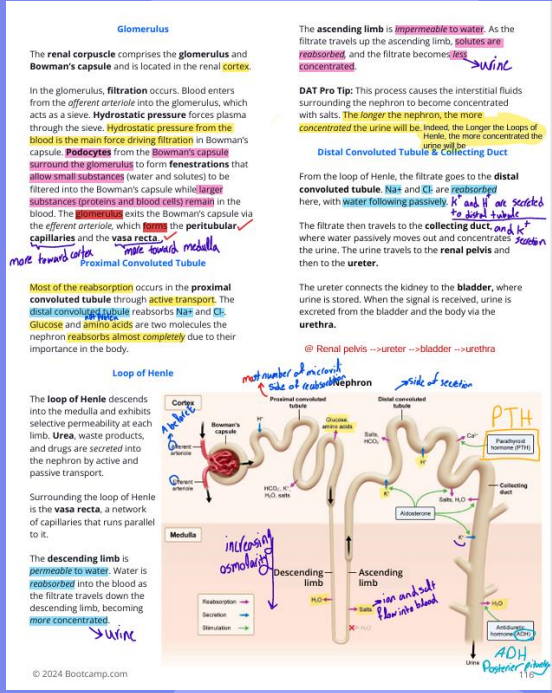
Biology



- Watch the videos → take notes → read the high-yield (Bootcamp) notes → do the question banks (Bio Bits) → practice tests (after you finished studying all the content)
- **Anki** flash cards after each chapter (time consuming, optional)
- Take **every topic** serious (whatever is in high-yield notes can be a Q)
- Actual exam is more **surface level** and broader

What I did

- Used Bootcamp videos + Question banks + Practice tests/ Booster practice tests/ DAT Destroyer (selective Q)
- Took notes from videos and questions, wrote them down
- Dedicated 2-3 hours to study for it per day
- Read the entire high-yield notes along with my notes at least 4 times
- Re-did the question banks again in the last two week



Glomerulus

The **renal corpuscle** comprises the **glomerulus** and **Bowman's capsule** and is located in the renal cortex.

In the glomerulus, **filtration** occurs. Blood enters from the *afferent arteriole* into the glomerulus, which acts as a sieve. **Hydrostatic pressure** forces plasma through the sieve. Hydrostatic pressure from the blood is the main force driving filtration in Bowman's capsule. **Podocytes** from the Bowman's capsule surround the glomerulus to form **fenestrations** that allow small substances (water and solutes) to be filtered into the Bowman's capsule while larger substances (proteins and blood cells) remain in the blood. The glomerulus exits the Bowman's capsule via the *efferent arteriole,* which forms the **peritubular capillaries** and the **vasa recta**.

more towards cortex

more towards medulla

Proximal Convoluted Tubule

Most of the reabsorption occurs in the **proximal convoluted tubule** through active transport. The distal convoluted tubule reabsorbs Na+ and Cl-. Glucose and amino acids are two molecules the nephron reabsorbs almost *completely* due to their importance in the body.

Loop of Henle

The **loop of Henle** descends into the medulla and exhibits selective permeability at each limb. **Urea**, waste products, and drugs are *secreted* into the nephron by active and passive transport.

Surrounding the loop of Henle is the **vasa recta**, a network of capillaries that runs parallel to it.

The **descending limb** is *permeable to water*. Water is *reabsorbed* into the blood as the filtrate travels down the descending limb, becoming *more* concentrated.

urine

The **ascending limb** is *impermeable to water*. As the filtrate travels up the ascending limb, solutes are *reabsorbed* and the filtrate becomes less concentrated.

urine

DAT Pro Tip: This process causes the interstitial fluids surrounding the nephron to become concentrated with salts. The *longer* the nephron, the more *concentrated* the urine will be. Indeed, the Longer the Loops of Henle, the more concentrated the urine will be

Distal Convoluted Tubule & Collecting Duct

From the loop of Henle, the filtrate goes to the **distal convoluted tubule**. Na+ and Cl- are *reabsorbed* here, with water following passively.

K+ and H+ are secreted to distal tubule

The filtrate then travels to the **collecting duct**, where water passively moves out and concentrates the urine. The urine travels to the **renal pelvis** and then to the **ureter.**

and K+ secretion

The ureter connects the kidney to the **bladder,** where urine is stored. When the signal is received, urine is excreted from the bladder and the body via the **urethra.**

@ Renal pelvis -->ureter -->bladder -->urethra

most number of nephrons

side of reabsorption

Nephron

side of secretion

Cortex

Medulla

Proximal convoluted tubule

Distal convoluted tubule

Bowman's capsule

Glucose, amino acids

Salts, HCO_3^-

Ca^{2+}

PTH

Parathyroid hormone (PTH)

HCO_3^-, K^+, H_2O, salts

H^+

K^+

Salts, H_2O

Collecting duct

Aldosterone

increasing osmolarity

Descending limb

Ascending limb

H_2O

Salts

ion and salt flow into blood

Reabsorption

Secretion

Elimination

H_2O

Antidiuretic hormone (ADH)

ADH

Posterior pituitary

Urine

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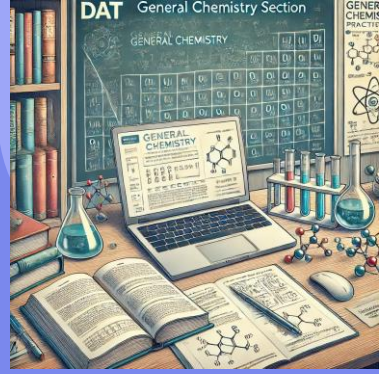
118

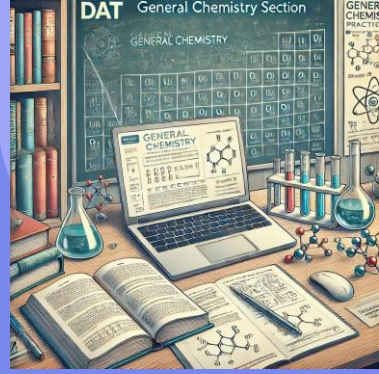
General Chemistry



- Watch the videos (Bootcamp videos are very useful) → take notes from videos → complete the corresponding questions → take notes from questions or just write the entire questions in your notes → practice tests (after you finished studying all the content)

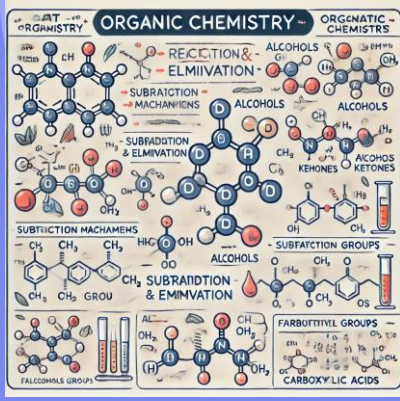
- Make yourself a notebook from the points learned for each chapter, very useful to review them in the last month

General Chemistry



- Read every chapter carefully, Can you imagine ***'what is the cause of rotten egg smell'*** to be a question?! So read everything!
- I had roughly 15 Q calculations – 15 Q theoretical knowledge (but, varies)
- Practice estimation and math calculations in your head for this section to save time
- You can spend **slightly more than 30min** for this section if you save time from bio and OC!

Organic Chemistry



- Watch the videos → take notes from videos → complete the corresponding questions → take notes from questions or just write the entire questions in your notes → practice tests (after you finished studying all the content) → keep taking notes from questions until you know every questions tricks!

- Download Bootcamp Organic Chemistry Reaction Summary Sheet (All you need for the reactions!) – look over it **every** day!

- **Save time** from this section for Bio and GC!

What I did

- Had a strong background from Orgo I/II from college
- Used Booster mainly for question banks
- Took notes from every single questions!
- Made a notebook from the points learned from videos and Questions
- Reviewed the reaction cheat sheet many times
- Completed almost all the Q on Bootcamp and Booster
- The actual exam felt easier and more straightforward for me

PAT

- Learn the techniques for each section in the first weeks.
- Practice EACH section EVERY day, do 15 questions from question bank per section (keyhole, TFE, angle ranking, …) per day!
- Don't stress about getting wrong answers at first. Becoming proficient in this section **takes time**, so keep PRACTICING!
- Think of this section as a game — you'll enjoy it more and learn more effectively!

PAT

- Re-organize the sections in a way that you have your **weakest section last** (For me, TFE was last)
- Correct **timing** is a gamechanger, know what time you have to move to the other category (50min, 38min, 32min, 23min, 13min, 0min)
- Use the previous section extra time to draw grids, lines,… before moving to PAT section

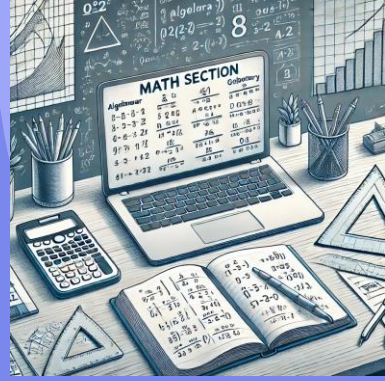
Reading Comprehension

- Various techniques, choose the one that works the best (Practice the technique a lot!)
- Common techniques: **Search and Destroy**, **Vanilla**, **Reading the entire passage**
- Try to enjoy the topic. If you don’t, pretend you do!

Reading Comprehension

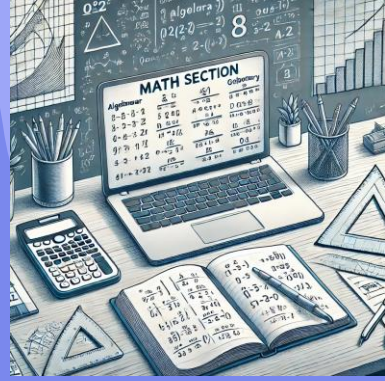
- Time is a super important factor, practice to become fast
- Expect a computer **lag** on the exam between 2-5 seconds
- Font and size of the text is different on exam from Bootcamp or Booster practice test!
- Critical to **mark** questions

Quantitative Reasoning



- Jump into the questions if you have the basic understanding of math (pre-calculus)
- Questions are predictable on the exam if you practice a lot.
- Practice with minimal writing (writing on note board on exam is not as easy and fast as on paper!)

Quantitative Reasoning



- Practice for this section in the end of your day, when you are tired, so you build the required stamina for this section!
- Write down the questions you found tricky, look over them days after again.
- Correct **timing** is a gamechanger, don’t miss any questions on exam .
- On the exam move to the next Q if you can’t solve it fast and mark it!

What to do in the last 2-3 weeks (review)?

- Start taking full-length exams (these are the most representative of the actual DAT)
  - ❖ Simulate the exam environment: follow the exact timing of the DAT to build your stamina, wear the clothes you plan to wear on exam day, etc.

- Review the entire exam the next day, go over the explanations for every single question

What to do in the last 2-3 weeks (review)?

- Go back and study the topic you found yourself weak
- Practice your top three weaknesses in PAT each day
- Review biology every day
  - Anki flash cards
  - Review from DAT bootcamp bio high yield notes
- Review OC reaction cheat sheet every day

How to know if you are ready to take the DAT?

- **Qualitative way**

If you feel you know the content and are confident when taking the practice test

- **Quantitate way**

If you are scoring 20 or above in each section of practice tests

❖ First attempt practice exam estimated scores are enough accurate for you to decide

✓ If you are not scoring well and you feel want to retake it don't take it! JUST RESCHEDULE

✓ Don't take DAT as a practice!

Score comparison, Bootcamp

Show First Attempt | Show Latest Attempt | Color Map

	BIO	GC	OC	PAT	RC	QR	AA
Average	25	25	23	21	19	25	24
Test 1	30	24	23	21	19	20	23
Test 2	23	30	26	21	20	20	24
Test 3	25	22	19	23	19	30	23
Test 4	23	24	23	22	20	30	24
Test 5	25	30	22	22	-	24	-
Test 6	23	22	23	20	20	25	23
Test 7	30	23	23	20	19	25	24
Test 8	25	26	23	21	19	30	25
Test 9	25	26	22	20	19	25	23
Test 10	25	24	22	-	-	-	-

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Score comparison, Booster

Performance

Latest Attempt | First Attempt

Hide Color Code

Below is your performance based on the practice tests you have completed to date. The estimated score is a weighted score that takes into consideration the number of attempts and the timing of when the practice test was completed. Remember, this is just an estimated score. Your focus should be on learning from your mistakes and improving your performance.

	BIO	GC	OC	PAT	RC	QR	AA
Test #1	26	19	22	21	17	22	21
Test #2	24	25	22	21	15	25	22
Test #3	26	21	25	22	15	25	22
Test #4	23	26	25	19	20	28	24
Test #5	23	21	28	22	21	26	24
Test #6	19	24	20	20	19	26	22
Test #7	22	26	25	24	19	25	23
Test #8	28	27	26	-	-	-	27
Test #9	26	25	22	-	-	-	24
Test #10	27	-	-	-	-	-	27
Average	24	24	24	21	18	25	-

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Compare the difficulty of practice test to actual DAT

- It is not very reliable and the difficulty may change! Just to have an overview

Section	Bootcamp	Booster
Biology	Same	Same
General Chemistry	Same	Same
Organic Chemistry	Harder	Harder
PAT	Harder	Harder
Reading	Same - easier	Same
Quantitative Reasoning	Harder - same	Same

Exam day

- You know about the Breakfast! Bring energy-boosting snacks for the 30-minute break.
- Locate your test center in advance, and make sure to arrive early.
- Use the optional tutorial to relieve stress and get familiar with the computer features. Don’t spend any time on other tutorials, as the section timer is running!
- Watch out for the time every few minutes, **don’t leave** any questions **unanswered** by no means!
- It’s easier than you think when you start answering the questions, TRUST ME!

Thank you for your attention!

Good luck!

Questions?!?

Feel free to email me with any questions, more than happy to help!

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