Ari's 2018 Study Guide
For DAT Domination

Preface

Since the first publication of this study guide in 2013, thousands of students have worked through this schedule with great results, including some of the highest scores I've ever seen being achieved in 2017! The DAT Bootcamp team and I are proud to present to you, the newest generation of **future dentists**, the blueprint to an excellent DAT score. In this updated study guide, you'll find the latest recommended materials to use, general DAT advice, a day-by-day study schedule to keep you on the track to success, and a breakdown on how to tackle each section of the DAT.

Here are some **updates for the 2018 DAT**. First, a quick look at the latest scope of the test in the 2018 DAT Guide does not mention geometry, trigonometry, or conversions in the Quantitative Reasoning section, and these sections have been replaced with "Quantitative Comparison". In a previous DAT Newsletter, the ADA specified Quantitative Comparison "**includes**, but is not limited to, conversions; probability and statistics; **geometry; and trigonometry".**

Therefore, please **do not neglect trigonometry, geometry**, etc. because you heard the DAT was changing. There are many versions of the DAT, and a basic understanding in trigonometry/geometry is necessary to answer some of the new quantitative comparison questions.

We've added tons of **quantitative comparison** questions for you to prepare with, and aligned them with the current style and difficulty of the real DAT. We'll continue to add more practice questions throughout 2018.

Finally, 3 quick tips as you prepare for the DAT:
1. **Create a study schedule** that goes over what you need to do day-by-day and stick to it. Readjust the study schedule if necessary.
2. **Take regular breaks.** Try to study for 50 minutes and then take a break for 10 minutes. Take one day off a week to relax so you don't burn out.
3. **Reschedule** the test for later if you don't feel ready to take the DAT. It was the best decision I made while studying.

To your success!
– Ari, Creator of DAT Bootcamp
Columbia University, College of Dental Medicine, Class of 2018

Introduction

So, you want to **dominate** the DAT? This guide is a combination of everything I have learned about test taking, the best study materials, and the DAT itself. I'm Ari, creator of DAT Bootcamp, and in this guide I will outline a study plan that has worked for myself and many other people. I'm going to go through some general DAT advice, the recommended materials to use, and a breakdown on how to tackle each section on the DAT.

Before we get started, it's important to note there are many ways to ace the DAT. This is just one way that's been used by many students. Some students only study 1-2 weeks and ace the DAT, others like myself take up to 3 months. Some students only use their college textbooks and notes while others buy review guides. It all depends on how good of a foundation you have in the basic sciences, along with your test taking skills and endurance. You can personalize this study guide to reflect your strengths and weaknesses.

Join our DAT Facebook Study Group

https://www.facebook.com/groups/datbootcamp/

This is an extremely **resourceful** group while you study for the DAT, and it's free! I recommend signing up for two reasons. First, if you ever have a question on a scientific topic, practice problem, or something about the DAT, it's very likely that someone on there will help you out.

Second, you can help out other people with their questions. You remember 10% of what you read, but 90% of what you **teach**. Even if you don't know the answer to someone's question, look it up and explain it to them. You'll learn something new, it'll stick with you for a long time, and you will have actually helped someone else out.

Register to Take the DAT

http://www.ada.org/en/education-careers/dental-admission-test/

Be sure to follow the steps exactly as specified on the ADA's website. **Read all of the guides and checklists provided so that you don't run into any trouble on test day.** Apply early so that you can get your first choice of when and where you want to take the DAT.

"When should I take the DAT?"

The DAT is offered **year-round** through the Prometric test centers, but I recommend registering **early** – seats tend to fill up quickly and it's common for the next available seat to be up to 2 months away!

The majority of students study for the DAT while enrolled in classes, in the summer between junior and senior year. They **start studying around April** and **take the test in the summer**, around June through August. It's challenging, but it isn't anything harder than what you're going to do in dental school, consider it a test run!

I'd recommend taking an **easier** course load during the semester if possible, and starting studying around late March, planning for a June test date. That way you start studying while in school, then finish up finals, and can dedicate some time just to the DAT towards the end during the schedule. You can also reschedule the test to later in July if needed. It's more important to take the DAT **when you're ready** rather than early.

If you're really rusty on your basic sciences, you can go through the first half of the study schedule (the Learning phase) on your own time, just to get a foundation back. Afterwards, you can restart the study schedule, and move through everything a little faster since you've already studied it somewhat, and it'll be more of a review instead of learning the material for the first time again.

Lastly, the DAT is the **same difficulty** throughout the year; there is no advantage to taking it in during the summer or winter.

"Should I self-study or take a test prep course?"

This is one of the first questions people have when they begin to study for the DAT.

It depends on your studying style. People normally either take a test prep course or self-study, and there are students who are successful both ways. One of the advantages of a commercial test prep course, like Kaplan, is that it's all preset and designed ready to go, so there is no work on your side to research what to do and what to study. The downside is you're stuck with the resources they provide, which in my opinion aren't worth the price tag, and it's quite costly at $1400.

An advantage of self-study is that you get to decide what you want and tailor your study schedule to exactly what works for you. Plus, it's significantly more affordable and provides better course materials. Most importantly, I think students that self-study score better because they motivate themselves to study, and aren't waiting for someone else to tell them the next step. The downside is that you'll have to spend some time designing your own study plan. Fortunately, we're providing a self-study plan that has worked for many dental students and can be easily personalized to your own liking.

"How is the DAT Scored?"

The DAT grades you on 6 different subjects: Biology (BIO), General Chemistry (GC), Organic Chemistry (OC), Perceptual Ability (PAT), Reading Comprehension (RC), and Quantitative Reasoning (QR). Each subject is scored on a standardized scale out of 30 points. The average test taker will score an 18 (50th percentile).

In addition to the 6 scores you'll receive above, you'll get an Academic Average (AA) score, which is the most important number. The AA is the mean of your scores, without the Perceptual Ability score (i.e. AA = (BIO + GC + OC + RC + QR) / 5), rounded to the nearest integer. You can use DAT Bootcamp's AA Calculator to help you calculate your estimated AA.

"What do I need to score on the DAT?"

The average for acceptance is around a 20 AA (~85th percentile). This is just an average though, a quick look at the ADEA Guide to Dental Schools shows that students get accepted with lower scores as well!

Many schools also have cutoffs for minimum DAT scores. Each school has a different cutoff, and some have no cutoff. I know of one student who was accepted to the University of Florida with a 14 in QR, on the condition that he retake the DAT and score at least a 15 in each section to meet their cutoff. Talk about pressure!

"How many questions do I need to answer correctly to get a 20?"

Generally speaking, you can only miss around 5 questions in each individual science and math section to score a 20, the average for acceptance. Scores of over 23 are very rare (98th percentile and up). You can miss around 20 questions in the perceptual test to score a 20. And lastly, you can miss around 10 questions in the reading comprehension section to score a 20. These are just averages, there are many different versions of the DAT being tested at the same time. **Every DAT is scaled differently according to its own difficulty.**

The point is there isn't much room for error on the DAT. In addition, you don't have a lot of time for each question. You have to know how to get to the correct answer and the fastest method to get there. Using DAT practice tests will help you build these skills.

A Quick Word About Retakes

First, you should **NEVER take the DAT just to see what it is like**. Never walk into the exam thinking you can just retake it if you bomb this attempt. You should walk into the exam knowing you've worked hard and are ready to give it your all on the first try.

You should always consult your pre-health advisor if you're planning on retaking the DAT. Some people end up retaking the DAT when they had perfectly good scores to start with, and end up wasting time and money. In addition, each dental school looks at retakes differently. Some dental schools only consider your highest set of scores, others average all your attempts together, and some only consider your latest set of scores. All in all, it's important to avoid retaking the DAT unless necessary. If you're retaking it, you need to try to score well on this attempt.

Of course, there are many people who retake the exam and get accepted into dental school, so it's not the end of the world if you need to retake it. I know people in my class at Columbia who retook the exam, and admission committees know that sometimes things just don't go right. You just have to learn from your experience and figure out what to do different next time to be better prepared.

Materials and Resources Overview

Total Cost of All Materials

☐ DAT Bootcamp ($347 for all practice tests and tools)
www.DATBootcamp.com/classroom/upgrade/

☐ ~~DAT Genius ($95)~~
Update 2018: We are continuing to integrate DAT Genius content into your DAT Bootcamp membership!

☐ DAT Destroyer and Math Destroyer ($200 and only sold in print)
You can save a lot of money by buying an older version. Anything after the 2013 version is perfect and provides more than enough practice.

☐ (Optional) ADA DAT Practice Test ($100)

TOTAL: $547 *(compare to $1400 for a test prep course)*

Materials and Resources by Section

Biology:

    For Review -

- [Bootcamp Bio Notes](#)

    For Practice -

- DAT Bootcamp Biology Practice Tests

General and Organic Chemistry:

    For Review –

- [Mike's DAT Videos](#) at DAT Bootcamp

    For Practice -

- DAT Bootcamp General Chemistry Tests

- DAT Bootcamp Organic Chemistry Tests

- DAT Destroyer (any version after 2013)

Materials and Resources by Section

Perceptual Ability:

- DAT Bootcamp PAT Academy, PAT Generators, and Practice Tests

- PAT Trainer Game: Play this game to enhance your perceptual ability. This is some of the best practice you can get, and it's free: http://datbootcamp.com/classroom/perceptual-ability/pat-trainer-game/

Reading Comprehension:

- DAT Bootcamp RC Academy

- DAT Bootcamp RC Practice Tests

- Scientific American: Great source to provide interesting science articles. Pick an interesting article or two everyday and you'll notice your reading improve over time. http://datbootcamp.com/classroom/reading-comprehension/

Quantitative Reasoning (Math):

For Review –

- Khan Academy for Math, focus on Geometry, Algebra 2, Trigonometry, and Probability/Statistics: https://www.khanacademy.org/math/

For Practice –

- DAT Bootcamp Quantitative Reasoning Tests

- Math Destroyer (any version after 2013)

Section Breakdown

The DAT consists of 4 sections: Survey of Natural Sciences, Perceptual Ability, Reading Comprehension, and Quantitative Reasoning.

Survey of Natural Sciences

You'll have 90 minutes to answer 100 multiple-choice science questions. The test consists of 40 biology questions, 30 general chemistry questions, and 30 organic chemistry questions, in that order.

Biology

The biology section is probably the toughest to prepare for because of the breadth of the material. You have to answer 40 biology questions. For this section, we are going to read and memorize all of the Bootcamp Bio Notes. DAT Bootcamp practice tests will tie everything together and get you ready for the real DAT.

I also think **Quizlet.com** is a pretty good option for reviewing biology, where most of the questions are recall and fact-based. If you search "DAT Biology" in Quizlet you'll find loads of other sets of **flashcards** to study from. An **even better** way to study would be to make your own flashcards based on the terms you need the most help memorizing.

General and Organic Chemistry

Both of these sections individually consist of 30 questions and are part of the Survey of Natural Sciences section too. For this section we will use Mike's DAT Videos to learn the material and create comprehensive notes (this is key). We will then use DAT Destroyer to go through some challenging questions so we can continue to fill in our gaps of knowledge. Finally, we'll use DAT Bootcamp to tackle the conceptual questions and tie everything together.

Perceptual Ability

Unless you're in architecture or engineering, it's likely you have never encountered this material before. You have 60 minutes to complete 90 questions that test your spatial and perceptual abilities. The 90 questions are broken up into 6 sub-sections, including: keyholes, top-front-end, angle ranking, hole punching, cube counting, and pattern folding (in that order).

The good news is that anyone can learn how to beat this section. It'll be frustrating at first, but if you stick with it and carefully review the solutions, you'll begin to know what to look for. We'll be using DAT Bootcamp PAT Academy, generators, practice tests and explanations.

PAT Trainer Game
http://datbootcamp.com/classroom/perceptual-ability/pat-trainer-game/

This is probably the best free practice you can get to develop your spatial and perceptual abilities, plus it's fun. Play this game every day during your DAT prep, make a habit to do it during your lunch break or when you're waiting for something to download. Try to beat my high score of 2.10.

Instructions for the PAT Sections
** View the official instructions to the PAT on the ADA's website **

Keyhole instructions: Page 24
TFE instructions: Page 28
Angle ranking instructions: Page 33

Hole punching instructions: Page 38
Cube counting instructions: Page 43
Pattern folding instructions: Page 48

Keyholes

PAT Academy:
[Watch these videos on the Keyhole section](#)

A 3D object is presented and you have to determine which aperture it will perfectly fit through, like a key in a lock.

Always start by looking at the answer choices and try to match them up to the 3D object. Use the process of elimination, look for which answer choices will NOT work and eliminate them. Often these questions will be proportion-based, so you will have to judge distances and slopes.

Top Front End (TFE)

PAT Academy:
[Watch these videos on the TFE section](#)

Two 2D images of a 3D shape are provided and you are asked for the third 2D image. A solid line is a change in elevation that you can see; a dotted line is a change in elevation you cannot see. Check out these tutorials for an in-depth explanation:
[DAT Bootcamp TFE Tutorial](#)

Tackle these problems by focusing in on one single piece of the image in the two given views. You should focus on any walls or unique looking pieces of the image. Using that information, try to determine which of the answer choices matches up correctly to that area. Eliminate answers that do not properly match. If you cannot eliminate any answer choices, choose a different piece to focus on and see if you can eliminate answers. Rinse and repeat until you have the correct answer.

It's important you **DO NOT use the line counting method** when practicing for this section. Line counting is an old technique that used to work on older versions of the DAT. However, line counting will eliminate either none or only one of the answer choices on the updated DAT. You need to be able to visualize the 3D object.

Angle Ranking

PAT Academy:
Watch these videos on the Angle Ranking section

Start using DAT Bootcamp's Angle Ranking Generator

A set of four angles is presented and you have to rank them from the smallest angle to the largest angle.

This section is probably the most frustrating to get better at. Play our Angle Ranking Generator game to keep getting new angles to rank. Try to spend the least amount of time on this section. You are much more likely to get other questions correct if you spend more time on them. Spending more time on an angle ranking question doesn't usually mean you'll have a better chance at answering it correctly.

Hole Punching

PAT Academy:
Watch these videos on the Hole Punching section

Start using DAT Bootcamp's Hole Punching Generator

A square piece of paper is folded multiple times and hole punched. You must unfold the paper and determine where the holes lie on the paper.

Draw a 4x4 grid on a piece of paper before you attempt to do these problems. Then, starting with the last fold, unfold the paper one step at a time. Anytime you see a hole punch in the paper, mark where it is located on the 4x4 grid. Continue to unfold the paper one step at a time until you have your solution on the grid, and then match it up with one of the answer choices.

Cube Counting

PAT Academy:
Watch these videos on the Cube Counting section

Start using DAT Bootcamp's Cube Counting Generator

A set of ~15 cubes are presented and you must determine how many cubes have x amount of sides exposed. Usually one figure is presented for 3 questions.

To tackle these problems, make a 2-column chart shown below:

# Sides Exposed	# of Cubes
0	
1	
2	
3	
4	
5	

Then, go one-by-one to each cube and determine how many sides each cube has exposed. Make a tally each time you count the number of sides a cube has exposed on the right. The bottom of a cube is never counted as an exposed side. In addition, there are no floating cubes; every cube must be supported by another cube underneath them.

Pattern Folding

PAT Academy:
Watch these videos on the Pattern Folding section

Start using DAT Bootcamp's Pattern Folding Generator

A flat 2D image is shown and you have to fold the image into a 3D shape. It's important to note that you have to fold the image INTO the plane of the paper, NOT up and out of the plane of the paper. Again, the trick here is to focus on just one aspect of the shape. Try to match one of the shapes in the answer choices to the image in the question. Then, determine which piece would be connected to that piece. Don't try to fold the entire image in your head, just focus on figuring out the orientation of 2 pieces at a time and eliminate answer choices that don't work.

Reading Comprehension

RC Academy:
Watch these videos on Reading Comprehension

You'll be presented with three ~1500 word scientific passages with 16-17 questions per passage. You'll have a total of 50 questions and 60 minutes to complete this section.

Reading is a tough section to prepare for, and it's best to prepare for this section over a long period of time. The good news is that **if you are able to read this study schedule, you already have the skills to pass this section**. We'll be using DAT Bootcamp RC Academy and practice tests.

The reading on the DAT is different from the SAT/ACT. It focuses more on detail-based questions rather than conceptual/application questions. Often, the question will refer to a specific part of the passage, and the answer can be read directly from the passage without any comprehension. It's more of a text-based scavenger hunt than a reading comprehension test.

Every day, navigate to our reading comprehension classroom page (https://datbootcamp.com/classroom/reading-comprehension) and pick out an article or two to read from Scientific American. The best way to improve your reading is by reading similar content that will be found on the exam. It doesn't take that long to read these passages. Try reading them before class gets started, while you wait in line at Starbucks, or even as you're eating lunch.

There are a lot of strategies to tackle reading comprehension, and I've documented most of them on our [RC Strategy Page](#). Joel also goes over the most popular ones in the RC Academy. You'll have to practice and find out what works for you. For me, I read the entire passage and then answer the questions, very plain and simple. It worked best for me, but you may find another strategy works better for you.

Others use a method called search and destroy, where you don't read the passage and go straight to the questions. This is a true text-based scavenger hunt. Once you read the question, you quickly scan the passage and look for keywords that the question refers to. Then you read that specific part of the passage and answer the question. Questions that require some comprehension are marked and answered after all of the detail-based questions have been answered, because by then it's likely you read the entire passage. Students have plenty of success with search and destroy; I didn't like it because it put too much pressure on me when I couldn't find an answer. Try it out and see if it works for you.

Another method involves writing down all of the paragraph numbers on a sheet of paper and reading the entire passage. As you read each paragraph, you write a few keywords that describe the paragraph. For example, you could say "1. Origin of disease; 2. Mechanisms; 3. Causes; 4. Etc.". This way, you have something to refer to if you need help finding an answer in the passage. If a question asks "Which of the following describes the mechanism of the disease?", you can refer to your notes and see that paragraph 2 talks about mechanisms.

Quantitative Reasoning

40 math questions are presented and must be answered in 45 minutes. The question difficulty goes up to algebra II and trigonometry, no calculus is required.

You'll have an on-screen calculator, however, the calculator may have a slight lag. We built our calculator in a similar fashion to help prepare you for this. Be sure to hit Clear plenty of times before you start a new calculation!

Since this is a time-intensive test, we will tackle this section in two runs. First, go through the exam and answer all of the easy questions. If you see a problem and you immediately know how to do it, solve it right there. If a problem looks difficult or you're not sure of how to solve it, guess, mark, and move on. Once you answer all the easy questions, move on to the marked questions. This way, you'll get all the easy points and at least put down an answer to all the questions. We'll use DAT Bootcamp QR and Math Destroyer.

Study Schedule (10 weeks)

Introduction

Your study schedule is going to be broken up into 2 parts. The first part will concentrate on learning the materials, where you will go over all the concepts the DAT will cover and develop your own notes. You will still be assessing yourself at this stage to ensure you are learning from your content review. We will spend approximately 5 weeks reviewing the content.

The second part revolves around practice questions and reviewing materials (5 weeks). Your study day will consist of doing untimed sets of practice questions and reviewing your notes from your content review. About halfway through the second part you'll switch to timed practice to begin building your test-taking skills. At the very end of the second part you will switch to full-length practice tests to build up your test endurance and stamina, as well as evaluate whether you are ready to take the DAT or if you need to postpone.

Part 1: Learning the Material

This is arguably the most important stage of your DAT prep. How you prepare and review here will determine if the rest of your studying will be torturous and draining, or productive and successful. Let's get started!

Click here to continue
to the study schedule