**Advice and Guidelines for TU Pre-Dental Students** Revised 9-20-18

These guidelines have been prepared for students as a supplement to regular faculty advising and information provided by the Pre-Medical/Pre-Dental Committee. Many additional questions can also be answered by following the links at: <http://www.towson.edu/fcsm/departments/preprofessional/>

Another extremely useful source of information is the American Dental Education Association’s (ADEA) website for prospective dental students: <http://www.adea.org/GoDental/> . The site covers undergraduate preparation for dental school, Dental Admissions Test (DAT) preparation, the process for applying to dental school, and specialty career options available. The ADEA also publishes an informative and comprehensive yearly dental school guidebook, the *ADEA Official Guide to Dental School*, which can be purchased here: <http://www.adea.org/officialguide/>.

# INTERESTED IN A CAREER IN DENTISTRY?

Dentistry was ranked as the #1 in best job in U.S. News and World Report in 2017! See: <http://money.usnews.com/money/careers/slideshows/the-25-best-jobs-of-2017?slide=26>

Employment opportunities for dentists are predicted to increase in the next decade or so. The average salary is ~$150,000-$200,000 and for many dentists, the profession allows for a comfortable balance between work and home life.

Dentists clean and repair teeth, but they do much more. They diagnose and treat an array of oral and dental diseases using x-rays and other techniques. They perform surgery on teeth and gums, and encourage good dental health and habits. Dentists may also perform cosmetic functions through orthodontics or other reparative or restorative techniques. For further information on dental career options, see <http://explorehealthcareers.org/en/Career/1/Dentist>

Certain characteristics will help you excel in dentistry. You need cultural competency to handle a diverse population of patients and need to be very comfortable interacting in a close, personal manner. You need to possess excellent oral communication skills, to adequately explain the procedures or problems to patients, as well as put them at ease. You must have exceptional manual dexterity and enjoy doing detailed work with your hands. Of course, you also need strong academics, maturity, empathy, problem-solving and multitasking skills.

# DOCTOR OF DENTISTRY: TWO POSSIBLE DEGREES

Depending on the dental school attended, a dental student will be awarded one of the following degrees upon successful completion:

* **D.D.S. (Doctor of Dental Surgery)**
* **D.M.D. (Doctor of Dental Medicine)**

Both doctoral programs follow a similar curriculum, typically taking 4 years, and both will qualify the student to practice general dentistry. The American Dental Association (ADA) does not recognize a differencebetween the D.D.S. and D.M.D. degree. The original degree name, Doctor of Dental Surgery (D.D.S.) reflects the historical notion that dentists were once considered to heal people with surgery. When Harvard opened its dental school in 1867, Harvard decided to use the name “Doctor of Dental Medicine” (D.M.D.) to reflect a broader view of dentistry, including medicine, surgery, and research. Some schools choose to offer D.M.D., while the majority of schools (~67%) offer the D.D.S. degree. Regardless, both doctoral programs train you to perform the same **general dentistry** procedures.

**Standard dental school curriculum**

As with medical school, the first two years of dental school will typically be heavy with lectures and labs, studying anatomy and physiology, microbiology, biochemistry, pathology, radiology, pharmacology, and “dental-specific” topics. There is some introductory clinical exposure during the first two years, but most of the clinical study will occur during the last two years of dental school, with time spent gaining hands-on experience in several dental specialties, as well as learning about practice management and community-based dentistry. The typical dental school curriculum is very rigorous and requires a much greater time commitment than a typical undergraduate curriculum. Students should consider dental school as a full-time job, attending classes during the day, and then studying in the evening.

For more detailed information about curriculum, visit the websites of the schools to which you might apply. For more general information, see:

<http://www.adea.org/GoDental/Future_Dentists/Dental_school_curriculum.aspx>

**ADVANCED DENTAL DEGREES AND SPECIALTIES**

There are a number of “specialties” one can go into after acquiring the basic D.D.S. or D.M.D. Specializing usually requires 2-3 extra years of training. Many specialties are described at this website: <http://www.adea.org/GoDental/Career_Options/Specialty_Options.aspx> and this website: <http://www.ada.org/en/education-careers/careers-in-dentistry/dental-specialties/specialty-definitions>

Briefly, nine specialties are recognized, including:

* **Orthodontics** – helping patients achieve proper bite and cosmetically straightening teeth
* **Periodontics** – treating gums and the bones supporting teeth
* **Pediatric dentistry** – treating children’s teeth
* **Endodontics** – treating dental nerves and pulp (perform root canals);

see American Association of Endodontists website for more info: [www.aae.org](http://www.aae.org)

* **Oral and Maxillo-facial surgery** – performing surgery on teeth, gums, and jaw
* **Oral and Maxillo-facial radiology –** interpreting images, as well as treating mouth/jaw.
* **Oral and Maxillo-facial pathology –**managing diseases affecting mouth/jaw.
* **Prostadontics** – preparing dentures and bridges to replace teeth lost to injury or decay
* **Dental Public Health** - helping establish public dental policies and working on health care reform; Usually requires a Master’s or Doctoral degree in Public Health. See the American Association of Public Health Dentistry’s website for more information: <http://www.aaphd.org/foundation>

**UNDERGRADUATe PREPARATION FOR DENTAL SCHOOL**

Dental schools seek well-rounded individuals who not only have a strong foundation in math and science but who also have exposure to the humanities and social sciences. The latter helps a person prepare for the interpersonal aspect of dentistry. The ideal dentist understands how society works and can communicate well with people from a diverse array of backgrounds. Some dental schools like the student to have demonstrated their manual dexterity by playing a musical instrument or by taking classes in drawing, sculpting, or drafting.

**Please check each school’s individual requirements to be certain you have all the prerequisites for the schools that you want to apply to**. A comparison of different schools can be found at: <http://dental-schools.startclass.com/> or <https://schools.studentdoctor.net/schools/3/dental-school-rankings/0>

**Do You Need to be a Biology Major to Apply to Dental School?**

No, you can apply to dental school with any major, provided you have met the course prerequisites for the school. However, most (60%) applicants are Biology majors, because there is tremendous overlap between the Biology major requirements and those required for application to dental schools. You can also see how many of these courses can be used to fulfill Towson University Core Requirements for the B.S. degree by looking at the blue superscript numbers. These courses will help prepare you for the DAT. In addition, for most students, a Biology degree will prepare you for alternative careers in the event that you do not get into dental school, including health care careers.

**Choice of a Concentration and “Academic Plans of Study” for the Biology major pre-dent student**

Biology majors at TU can fulfill their prerequisites with either the *Functional Biology of Animals* **(FBA)** or the *Cellular and Molecular Biology* **(CM)** concentrations, as much of the coursework is identical. As an FBA student, you are required to take Advanced Physiology and either Cell or Molecular Biology. As a CM student, you need to take both Cellular and Molecular Biology, as well as a lab, but you don’t need to take Advanced Physiology.

You might choose your concentration based on your “back-up plan”, in case you aren’t admitted to dental school. If you likely would pursue some other profession involving human health (e.g., radiology technician, pulmonary therapy assistant, etc.), then you should choose FBA*.* Alternatively, if it is more likely that you would pursue a career that has you working in clinical or research labs, the pharmaceutical industry, genetic counseling, or biotechnology, you should choose CM.

The academic plan of study shown below actually satisfies both concentrations, and also shows which core requirement is fulfilled with each course and whether each upper level course is either a required or recommended course for each concentration.

**Can You Use AP Test Credits or Community College Credits for Prerequisites?**

Dental schools have varying views on the acceptability of taking either prerequisite or elective courses at community colleges, and using AP test scores for prerequisite or electives. To be certain, you would need to check with each individual school, but a reasonable **general rule** would be to take **all prerequisite courses at a 4-year institution, such as Towson University and only take lower level electives at community colleges.**

**Minimum Course Requirements for Applicants to Dental School**

Note: In the list of courses below ***blue superscript numbers*** *indicate which core requirement is filled by that class.*

***Most*** dental schools***require*** applicants to have completed the following coursework:

Two lab-based courses in General Biology (e.g., BIOL 200/200L**7** (or 201) and 202**8**)

Two lab-based courses in Physics (e.g., PHYS 211 and 212)

Two lab-based courses in General/Inorganic Chemistry (e.g., CHEM 131/131L and 132/132/L)

Two lab-based courses in Organic Chemistry (e.g., CHEM 331 and CHEM 332)

Biochemistry (e.g., CHEM 351; required by most dental schools, including University of Maryland)

Two courses in English composition (see below for more information on this)

***Some*** dental schools either **require** or **strongly recommend** additional courses, which can include:

Human Anatomy & Physiology – BIOL 221/221L and 222/222L

or BIOL 325 – Animal Physiology

Advanced Physiology - BIOL 470

Microbiology – BIOL 318

Cell and/or Molecular Biology – BIOL 408 and/or BIOL 409

Genetics – BIOL 309

Histology – BIOL 360

Psychology – PSYC 101**6**

Sociology – SOCI 101**6**

Statistics - MATH 237**3**

Calculus - MATH 211**3** or 273**3**

Some other courses **recommended** by dental schools include:

Immunology – BIOL 421

Zoology – BIOL 207

Embryology (Developmental Biology) – BIOL 463

Business classes (Economics, Management)

Foreign languages**5 or 12** (especially Spanish)

Computer science

Speech and Communication courses**5**

History**10 or 11**

English literature

Classes/hobbies requiring manual dexterity – drawing**4**, sculpting**4**, pottery**4**,

playing a musical instrument

**A Note on English Course Requirements**

As noted above, most dental schools require two courses in English composition. Freshman English, i.e., ENGL 102**2** or 190**2** will count as one course. The advanced writing class that one takes to satisfy Core 9 will count as the second course. Dental schools prefer that students to take an advanced course offered by the university’s English department. We therefore recommend one of the following:

* + ENGL 310**9**: Writing Argument
  + ENGL 313**9**: The Academic Essay
  + ENGL 316**9**: Writing about Literature
  + ENGL 317**9**: Writing for Business and Industry
  + ENGL 318**9**: Technical and Scientific Writing

There are other Core 9 classes that are taught in different departments. Examples include CHEM 301: Professional Ethics for Scientists and KNES 353: Sport and Society, and BIOL 381: Writing in the Biological Sciences. One potential problem with taking this course is that a dental school may not recognize the course as a true writing course (even if the word “Writing” is in the course name). For this reason, again, we recommend an ENGL course.

**sample 4-year academic plan of studY**



The plan presented above allows the student to complete some basic biology courses, and both inorganic and organic chemistry by the end of junior year. As such, **a student following this schedule *could* be ready to take the DAT, the Dental Admissions Test, by spring or summer of their junior year**. This would allow the student to apply to dental school between their junior and senior years, and begin dental school the fall after graduation.

**HOWEVER**, it is sometimes difficult to schedule classes as shown on this plan due to course enrollment issues, studying abroad, or the need to repeat a class. Also, *waiting to take the DAT during your senior year, after taking Biochemistry, Cell Biology, and either Advanced Physiology or Molecular Biology, might help improve your score by allowing you more time to study and increasing your knowledge base.*

**If a student takes the DAT in the spring of their senior year, there will be a year “off” after graduation before entering dental school (the year off is often called a “gap” or “glide” year).** Many students think that taking the DAT “late” and then having a glide year puts them at a disadvantage in competing for slots in dental school. This is almost certainly untrue. There are multiple potential benefits of this strategy, including:

- Dental schools tend to prefer students that are a little older, a little more mature, experienced and better educated. The average age of students entering dental school is typically ~ 23- 24 years.

- Students who apply to dental school at the end of their junior year would not report senior year grades. Often, a student’s grades are highest in the senior year because students are taking elective courses that interest them and now have extensive experience handling university courses. Thus, application to dental school in one’s senior year can mean application with a higher GPA.

- An extra year before application gives students more time to engage in critical extracurricular activities, such as clinically related internships, research, volunteer work, etc.

- An extra year before application gives students more time to take advanced classes and prepare for the DAT. Also, students can spread out their difficult classes over more semesters, potentially allowing them to do better in each class.

- A glide year after graduation gives students time to enjoy themselves before they begin 4+ years of intense dental training. It can also give them time to earn some much-needed money to finance their dental education.

For more reasons why a glide year might work for you, do a google search and you’ll see that not only are there many different reasons for doing this, but it’s also becoming the norm. Also, see the perspective of at least one dental school admission officer by reading: <http://www.adea.org/GoDental/Dental_Blogs/Advice_from_admissions_officers/The_Gap_Year_in_the_Eyes_of_Admissions.aspx>

**Academic record/GPA**

In 2015, **~60% of students accepted into American dental schools had GPA averages of 3.5 or above**. Another ~25% had a GPA greater than 3.25. The remaining 15% accepted with a GPA of <3.25 almost certainly had other outstanding attributes, like excellent DAT scores, extensive professional experience, additional education, or other distinguishing credentials. Also, some schools have minimum GPA cutoffs to reduce the number of applications reviewed. Therefore, your academic record will be an important factor in your dental school application.

On your application you will be required to indicate all grades from every college (including community college) and every class that you have taken. This includes first grades in courses that were repeated for a better grade**. Both grades** are included in the calculation in the case of repeats, so if you got a C in Biol 202, then repeated it and got an A, it will average out to be 8 credits of B, even though your Towson GPA calculation will exclude the lower grade.This means that, if you repeated a course for a higher grade, your dental school application GPA will be **lower** than that shown on your Towson University transcripts. **Be aware of your TRUE GPA,** the one that dental schools will be using to compare you with other applicants!

Note also that W’s (especially after your freshman first semester) and course repeats will definitely be noted, and may raise concerns, by those reviewing your application. Thus, you want to minimize withdrawals and repetition of courses. Valid excuses for withdrawal from courses such as medical leave or family emergencies are acceptable, but may require documentation. Again, the less you have to “explain,” the better.

You should also realize that your ability to “bring up your GPA” diminishes as the number of credits you’ve earned increases. In other words, after you have taken a large number of courses and gotten many grades, each new course/grade has less of an impact on your overall GPA. You can use a calculator (like the one found here, <http://gpacalculator.net/how-to-raise-gpa/>) to see how much you can bring your GPA up with your remaining credits. If you play around with the numbers here, you’ll see that **it’s much easier to bring your GPA up early in your academic career when you’ve taken fewer credits**.

**DENTAL ADMISSIONS TEST (DAT)**

The DAT is the standardized, multiple-choice, exam required for application to all dental schools in the U.S. It will assess your overall academic ability, scientific knowledge, and perceptual/spatial skills.

The DAT is given at various testing centers across the country, including a Towson location, but it must be scheduled in advance at the Prometrics testing center website (<https://www.prometric.com/en-us/clients/ada/Pages/landing.aspx>). The actual exam takes 4 hours and 15 minutes, excluding an optional 15 minute tutorial at the beginning.

The DAT consists of four sections, administered in this order:

* **Survey of Natural Sciences** (100 questions in 90 min)
  + Biology (40 questions on cell/molecular, anatomy/physiology, genetics, developmental biology, zoology, ecology, evolution and behavior)
  + General Chemistry (30 questions)
  + Organic Chemistry (30 questions)
* **Perceptual Ability** (PAT) – (90 questions in 60 min) includes 6 subtests testing different spatial and perceptual skills
* **Reading Comprehension** – (50 questions in 60 min) tests ability to understand and analyze 3 reading passages on variable topics
* **Quantitative Reasoning** – (40 questions in 45 min) algebra, geometry, trigonometry, fractions, critical thinking problems, probabilities, and statistics. A basic calculator is available on the computer screen for this portion of the test.

Each section is graded on a standardized scale with 30 as the highest possible score. The Academic Average (AA) score is the numerical average of all sections, except the perceptual test. A separate score is reported for each of the natural sciences, as well as a Total Science (TS) score, which is the standardized score based on all 100 questions in the Natural Sciences section.

Different standards exist for each school but, **in 2013, the average DAT score for enrollees in each category was 20** (19.9 in DAT Academic Average, 19.8 in DAT Total Science, and 20.0 in DAT Perceptual Ability). In 2013, ~ 75% of students enrolled in dental school had DAT scores greater than 19,with 35-40% scoring >21! The University of Maryland Dental School reported an average of 20-21 for the AA, TS, and PAT for the class entering in 2013.

Detailed information on the DAT can be found here: <http://www.ada.org/en/education-careers/dental-admission-test/dat-guide>.

**Preparing For The DAT**

**Don’t take the DAT before you are ready**! Dental schools vary in how they evaluate multiple DAT attempts. Some schools average the the scores on different attempts, and some schools either accept only the highest or only the most recent. Therefore, you should strive to do your very best grade on your first try. You can take the DAT more than once, but you need to wait at least 90 days in between attempts and multiple attempts can be a “red flag” for dental school admission committees. You would also need special permission to take it more than three times!

Preparing for the DAT could take up to a year. Some students with successful DAT scores reported studying 8-10 hours for 15 weeks, which is equivalent to a full semester of extensive DAT studying! Other students spread the studying out over 30 weeks or more, especially if they have limited time to study or are trying to overcome difficulties taking standardized tests. See <http://www.umbc.edu/premed/dental.php> for more suggestions on how long to study for the DAT.

There are a few websites that show detailed 8-week intensive study schedules.

<http://forums.studentdoctor.net/threads/sample-dat-study-schedule.719365/> shows an example of an intensive 8-week study program, using many of the resources shown below.

The site <http://crushthedatexam.com/dat-study-schedule/> also gives an 8-week study schedule and tips, including the idea that **you should treat your studying as a full-time job.**

There are a variety of resources to help prepare for the DAT. These are described below. Some are actual full courses, which include reviewing material via videos or lectures then taking practice exam questions and getting an answer analysis. There are also more informal, self-paced video tutorials. One can also simply get practice tests.

Some students don’t remember their coursework, so they need the video reviews or lectures. Other students need to focus on their test taking skills, and review material, while taking practice tests. *DAT Destroyer* and *DAT Bootcamp*, as well as *Chad’s videos for Chemistry* (see links below) have been the resources most frequently cited by TU students when asked what they considered most helpful, but you will need to see what works best for you.

<http://forums.studentdoctor.net/threads/best-study-materials-for-dat-poll.1153574/> shows a student poll for “best study resources for the DAT.”

Also see <http://crushthedatexam.com/dat-study-materials/> to see a comparison of various study resources.

Please note that many of these online courses have “special offers” or coupons, so search around the internet to get the best deal before purchasing access. The prices shown below are those that appeared online in Summer 2015. Prices change regularly.

*Review courses*

There are a few companies that have multiple options to suit the student. These companies offer in-person courses, live online review courses, self-paced videos, or book-based reviews. These courses can be advantageous for students who require the “classroom/course” structure to stay focused and on task.

* Kaplan DAT review course <https://www.kaptest.com/dat>

(Options: In-Person, Live Online, Self-paced online, Private one-on-one tutoring)

$1499 for 6-week, in-person, College Park MD; $1499 for 6-week, live online; $1299 for 120-day access to self-paced videos

* Princeton Review (Live online or private)

$1399 for 12-week (55 hour) Live online class

<http://www.princetonreview.com/medical/dat-test-prep>

*Self-paced, online video tutorial programs or DVD based review materials*

* DAT Destroyer ($150-400) <http://www.orgoman.com/datdestroyer.html>
* DAT Bootcamp - <http://datbootcamp.com>; Feralis Biology notes
* Coursesavers - **Chad’s self-paced videos** – Chemistry (organic and inorganic), quantitative reasoning, and biology; $50 for 30 day access to videos and quizzes; units can also be purchased separately (biology is currently incomplete, but the chemistry videos have been very well received). <https://www.coursesaver.com/video/category/2012-biology-incomplete-but-free-of-charge/4000> free Biology; <https://www.coursesaver.com/video/category/dat-videos> chemistry.
* JCoReview - $38-79 for videos for PAT, organic and inorganic chemistry, and biology; units can also be purchased separately <https://jcoreview.com>
* Gold Standard – <http://www.dat-prep.com> $150 for books, $399 for books, DVDs, practice tests

*Online* ***practice test*** *services*

Tests are typically similar to actual DATs and give analyses of results.

* DatQVault - $199 for 100 days; all practice test questions (Organic and inorganic chemistry, biology, math, reading comprehension, perceptual ability); units can also be purchased separately

<http://datqvault.com/purchase>

* Crack the DAT - $200- access to all practice tests, but units can also be selected individually; offers video explanation of answers; <https://www.crackdat.com>
* Top Score Pro - $60 – sample tests and questions

<http://www.scholarware.com/datcover.htm>

*Review books*

* Kaplan DAT prep book (2016)- <http://www.amazon.com/Kaplan-Strategies-Practice-Review-Tests/dp/1625233086/ref=sr_1_3?ie=UTF8&qid=1439233332&sr=8-3&keywords=DAT+preparation> - $53
* Cracking the DAT by Princeton Review (2012)- <http://www.amazon.com/Cracking-Dental-Admission-Graduate-Preparation/dp/0375427562/ref=sr_1_1?s=books&ie=UTF8&qid=1423195084&sr=1-1&keywords=dat+preparation> $46

*AP study guides*

These consolidate a year of college level science, so they are often used to study, especially for the Biology portion of the DAT.

* Cliffs AP Biology (2016) - <https://www.amazon.com/CliffsNotes-AP-Biology-5th-Cliffs/dp/0544784685/ref=pd_cp_14_1?_encoding=UTF8&pd_rd_i=0544784685&pd_rd_r=AFS515S0AW775844419B&pd_rd_w=ttyfj&pd_rd_wg=U0iEj&psc=1&refRID=AFS515S0AW775844419B>
* Cliffs AP Chemistry (2016) <http://www.amazon.com/CliffsNotes-Chemistry-Angela-Woodward-Spangenberg/dp/0544370007/ref=sr_1_3?s=books&ie=UTF8&qid=1439234404&sr=1-3&keywords=cliffs+ap+chemistry>
* Barron’s AP Biology (2017)- <https://www.amazon.com/Barrons-Biology-Deborah-Goldberg-M-S/dp/1438008686/ref=pd_cp_14_1?_encoding=UTF8&pd_rd_i=1438008686&pd_rd_r=EK1TR936FD2QPV0NJEPZ&pd_rd_w=RVgGy&pd_rd_wg=QwyIn&psc=1&refRID=EK1TR936FD2QPV0NJEPZ>
* Barron’s AP Chemistry (2016) <https://www.amazon.com/Barrons-Chemistry-Neil-Jespersen-Ph-D/dp/143800737X/ref=pd_sim_14_19?_encoding=UTF8&pd_rd_i=143800737X&pd_rd_r=BQN87DVTWTF782Y6NQY8&pd_rd_w=i3VOL&pd_rd_wg=1V71I&psc=1&refRID=BQN87DVTWTF782Y6NQY8>

**APPLYING TO DENTAL SCHOOL**

Several years of hard work as an undergraduate will culminate in your application to dental school. The American Dental Education Association’s website has many resources to guide you along this process. See <http://www.adea.org/godental/> for a wealth of information about choosing dentistry as a career.

They even suggest things that can be done as early as your freshman year of college that can strengthen your application. See

<http://www.adea.org/GoDental/Application_Prep/The_Application_Process/Timeline_to_apply.aspx>.

See also <http://www.asdanet.org/predental/timeline.aspx> for timelines based on each year of college.

**Choosing Schools to Apply to and How Many?**

There are several criteria you should consider when selecting dental schools. The number of schools that you should apply to will likely vary depending on the strength of your application. High GPA and high DAT scores will allow you the flexibility to apply to fewer schools, whereas lower GPA and DAT scores indicate that you should apply to more schools to improve your chances of admission to at least one school. **Applying to 10-12 schools is often recommended** for those students with good to very good GPA and DAT scores.

* **Location** is always an important consideration: in-state tuition is usually considerably less than out-of-state tuition. Also, you need to think about how comfortable you are being away from your home base and the travel costs for visiting, even for an interview. See <http://www.adea.org/GoDental/Application_Prep/The_Application_to_Dental_School_ADEA_AADSAS/Deciding_where_to_apply.aspx> for an interactive map showing dental schools in the U.S. and suggestions on how to pick schools.
* **Competiveness** will determine how likely you are to get into a school. Many students choose schools in 3 tiers of competitiveness: “safety,” “mid-tier,” and “reach,” which represent, respectively, the schools they feel *very confident* that they can get into, *likely* to get into, and *least likely* (but great!) to get into. Purchase or consult the ADEA Guide to Dental Schools, <http://www.adea.org/officialguide/> that gives detailed information about the qualifications (e.g., GPA, DAT scores) of students recently admitted. This guide also has other information about each school, and on the process of applying.
* **Admission Requirements** of different schools including required undergraduate coursework, clinical experience, etc. For various reasons, you might not meet all the requirements for admission to certain schools.
* **School Focus**, e.g. whether it has a larger, clinically-oriented program or a smaller, community-oriented program
* **Diversity** of the student population
* **Cost**

**Application Success Rate and the Application Process**

In 2015, 5,943 students were admitted to U.S. dental schools while 11,789 applied. Thus, the application success rate was ~50%. The GPA of the students enrolled in dental schools in 2015 was 3.5.

For more details, see:

<http://www.adea.org/publications-and-data/data-analysis-and-research/applicants-enrollees-and-graduates.aspx>

Almost all American dental schools (60/64) use the same centralized application that is submitted to the ADEA’s American Associated Dental Schools Application Service (**AADSAS**).

See: <https://portal.aadsasweb.org> and <http://www.adea.org/dental_education_pathways/aadsas/Applicants/GeneralInstructions/Pages/AboutADEA.aspx>

The application window for the AADSAS is open from **June until February.**  *Check application deadlines for schools to which you will apply and plan accordingly* **-** Application deadlines vary by school from September 1 to February 1. HOWEVER, **applying as early as possible is always a good idea, as some schools start filling seats immediately after the application window opens.** If you apply late, most or all of the “slots” may be taken and you are more likely to get “wait-listed” regardless of how strong a candidate you are. Some advisors suggest that you should **apply no later than end of August**.

There are several parts to the application that collect biographical information, including:

* **Personal information –**provide your name, address, gender, ethnicity, and citizenship
* **Family background** – including anything indicating a “disadvantaged” background
* **Educational information** –list all high schools and colleges attended
* **Professional involvement** –list relevant experiences since starting college, such as:
  + **Academic enrichment programs** – Programs such as Summer Health Profession Education Program (see <http://shpep.org> for more information)**.**
  + **Awards, honors, scholarships** (Limit of 5) – awarded during college only
  + **Dentistry experience** (Limit of 10): Applicants need to provide a brief description of the activity, enter the supervisor's title, including start and end dates, and indicate whether the position was paid, volunteer, job shadowing or other.  Most schools require at least some shadowing hours, so be sure to check each school’s specifications.
  + **Extracurricular/volunteer/community service** (Limit of 10) – Activities that show leadership are particularly valued, but dental schools also want to see community-conscious students that have sustained involvement in activities that show their individuality, as well as adding value to their community.
  + **Research experience** (Limit of 5)- Formal research programs, including those sponsored by universities. Although schools do not usually require it, research experience may help you stand out. If you have a genuine interest in research, you should pursue it.
  + **Work experience** (including Military Service) (Limit of 5) – jobs for which you were paid
  + **Hobbies or skills involving manual dexterity –** describe your skills/efforts at things like calligraphy, model-making, painting, wood-working, playing instruments, dental assisting, electronic repair, sewing, knitting, pottery, drawing, etc.
* **Coursework and grades** received from all classes at all colleges attended.
* **Dental school designations** –a list of dental schools to which you want to apply.

You will also need to submit:

* **Transcripts** from all colleges attended. ADEA will compare these with self-reported coursework/grades. Some schools request official transcripts to be sent directly to the school.
* **DAT scores**
* **Personal statement -** In this one page essay, you need to describe why you are pursuing a career in dentistry, while showing that you are articulate, motivated, socially conscious, and knowledgeable about the field of dentistry. Ideally, you will have a captivating personal statement which expresses your passion and commitment to the field.
  + For some suggestions on how to start, see <http://www.adea.org/dental_education_pathways/aadsas/Applicants/Pages/PersonalStatement.aspx>
  + Several other resources to help prepare your statement can be found here:

<https://sites.duke.edu/predental/application/personal-statement/>

* + Towson University has a Writing Center to help you once you have a draft. For more information see: <http://www.towson.edu/writingcenter/>
  + <https://www.towson.edu/careercenter/media/documents/graduate_professional_school/guide_to_writing_a_personal_statement.pdf>
* **Letters of recommendation –TU provides a committee letter from its Pre-professional committee**. See <https://www.towson.edu/fcsm/departments/preprofessional/medicaldental/admission.html>

more information. Briefly, this committee collects letters of recommendation for this applicant (e.g., from professors, supervising dentists, etc.), then interviews the applicant and writes a letter, which includes interview impressions and a synopsis of the submitted letters. The committee will submit this letter to AADSAS directly, along with the original letters from your recommenders.

* Dental schools may require you, as a TU student, to have this “committee letter” because TU has an official “pre-professional committee” and prepares these letters. In order to participate, you need to:
* have an overall and science GPA of 3.0 or greater
* have taken at least 24 credits at TU, with 16 credits in sciences
* Get the TU Pre-professional application materials no later than February of the **year you are applying** to dental schools (**or the year that you are graduating** from TU).
* Request letters of recommendation from faculty members and professionals for whom you have worked or shadowed at least a month before they are due (end of April or beginning of May).
* Schedule an interview with the committee that will occur in May, during finals week.
* Have your DAT scores reported to the committee. The committee will need these scores, as well as your AADSAS identification number (given to you upon application), in order to finalize your letter and send it to the schools that you are applying to.
* **Supplemental application materials** including things such as proof of residency, criminal background checks, or sometimes an additional essay or two. You may be asked to submit these at the time of your AADSAS application or after you’ve made the “first cut.”

**What Happens After You Apply**

After completing this extensive application, the AADSAS will supply your chosen dental schools with the required information in the proper format.

Each dental school will decide how heavily to weigh each of the above categories in determining who will be admitted. See the ADEA Guide to Dental Schools to see what your schools emphasize.

Available at: <http://www.adea.org/officialguide/>

Rather than a strict, traditional approach of primarily determining admission based on GPA and DAT scores, the more current *holistic* model employed (to various extents by different schools) is to consider each student in a more flexible, individualized manner. For more information, see: <http://www.adea.org/HolisticReview/About.aspx>. Briefly, value is placed on non-academic attributes of a student, such as their cultural and linguistic experiences, or their ability to overcome obstacles in their life. This approach also considers a student’s commitment to community service and desire to cater to underserved populations. This means that all of those sections of the AADSAS have value to admissions people: the background section of the AADSAS, extracurriculars, volunteer experiences, and personal statement. These “extras” may allow you to compensate for less than stellar GPA or DAT scores.

Dental schools will make their first round of cuts based on the information on the ADSAS, then may send out supplemental application materials and/or request an in-person interview.

**Interview Preparation**

Dental schools typically require an interview before admission. This is a wonderful opportunity for you to display the attributes that will allow the admissions committee to see you as a strong candidate. The format of the interview will depend on the school. It may be one person or a panel of people that conduct the interview. The questions may vary from open-ended “tell us why you want to be a dentist” to a more detailed “how would you handle this” situation. Such a situation might involve an ethical dilemma or evaluate your problem solving skills. For more information, see <http://www.adea.org/GoDental/Dental_Blogs/Advice_from_admissions_officers/How_to_Prepare_for_Your_Dental_School_Interview.aspx>

You can improve your interviewing skills with practice. As a TU student, you will have a Pre-professional Committee interview which will give you some experience prior to the dental school interviews. TU’s Career Center can help you with general interviewing skills and with answering questions specific for pre-professionals <https://www.towson.edu/careercenter/students/> Other tips on interviewing are presented by the American Student Dental Association (<http://www.asdanet.org/predental/interview-tips.aspx>) .

**What if Your Grades/DAT Scores are Not Good Enough and/or You Don’t Get In On Your First Try?**

Failure to gain entrance to dental school on your first try is not uncommon – in a recent year, 53% of applicants were unsuccessful. Generally, rejected students did not have GPAs and/or DAT scores that met standards required for admission. Many dental schools have cut-off GPA and DAT scores below which they will not review applications.

If you do not get into any school on your first try, you first need to consider whether you applied to an appropriate number of schools AND schools with standards that match your credentials (see above). Most students should apply to at least 10 schools and 15-20 is typical. If your credentials are borderline, closer to 20 is advisable to broaden your chances. Again, as discussed in the section above, you specifically want to focus on schools that regularly admit students with your DAT scores, GPA, etc.

If your DAT scores are lower than desired, it may make sense to take a year off to better prepare for the exam while improving other elements of your application (clinical time, volunteering, research, etc.). It may be warranted to take a DAT preparatory course or even to repeat a preparatory course. With or without a preparatory course, extensive focused preparation for several months is highly recommended prior to a second attempt at the DAT.

If your GPA is lower than desired, you may want to enter a Master’s degree program (thesis or non-thesis program) to do additional coursework at a higher level to prove your academic abilities. While graduate-level grades are not averaged into your undergraduate GPA, you will want to excel in graduate coursework to the point where the overall GPA meets or exceeds the dental school standards. However, be aware that dental schools focus most on undergraduate course work considered to be most relevant to, and predictive of, success in dental school.

Expensive, but often effective, alternatives to graduate work are post-baccalaureate programs designed to provide students with the tools to better prepare them for dental school application. Some of these programs are designed for students who have not taken the prerequisite science coursework. Other post-baccalaureate programs are designed to aid students from disadvantaged circumstances or those that just need to boost their credentials. Some “dental-related” post-bacc programs are listed on this website: <https://studentaffairs.jhu.edu/preprofadvising/pre-medhealth/after-graduation/masters-post-bac-programs/>

See this ADEA website to determine if a post-baccalaureate program might be right for you:

<http://www.adea.org/GoDental/Application_Prep/Preparing_for_Dental_School/Postbaccalaureate_Programs.aspx>

**WHAT IS YOUR “PLAN B”?**

Despite the fact that your *main* goal is to be accepted into dental school and eventually enter clinical practice, it is wise to consider alternate career paths as well. Dentistry is an extremely competitive field. Many individuals who have begun undergraduate programs fully intending to become dentists end up changing their plans, either because their academic records don't meet the admission standards, because their DAT scores are too low, or because they've simply found something more appealing to pursue. Please understand that to think about, even to plan, for the possibility of a "plan B" career is not a sign of weakness and does not mean you are not serious about going to dental school. Instead, it shows that you are mature, forward-thinking, and adaptable. To be astute enough to consider secondary careers is not just smart - it could be extremely beneficial, save you time and money, and almost certainly make a favorable impression on those evaluating that individual's application materials. In fact, you can expect a question about your ‘plan B’ in many dental school interviews for just these reasons.

Students interested in dentistry are encouraged to research the wide variety of jobs available in the health professions very early in their collegiate education. The ADEA provides a list of health profession careers at: <http://explorehealthcareers.org/>. Students are also encourage to take advantage of the resources at the TU Career center.

**DENTAL VS MEDICAL SCHOOL?**

Some students have always had their heart set on being a dentist, whereas other students just want to be “some kind of doctor” and others feel that successful completion of some dental school program might improve their medical school application.

* How similar is the prerequisite coursework?
  + Very similar – the courses recommended for pre-dental students are essentially the same as those recommended for pre-meds, with the exception that pre-dental students should take core courses (or gain life experiences) that enhance manual dexterity.
* How similar is the DAT to the MCAT?
  + Fairly similar with two notable differences:
    - the DAT has a perceptual ability test (PAT) section that assesses your spatial ability.
    - the DAT does not have a Physics section.
* Is it easier to get into dental school than med school?
  + Maybe a little, because 60% of dental students had a GPA of 3.5, whereas 90% of medical students had that GPA. It often comes down to applicant pool, however, i.e., who you are competing with. Most sources feel that dental school may be a reasonable option for students who are on the borderline for medical school acceptance.
* Can you use dental school as a gateway into medical school?
  + Some students may feel that they can “prove their worth” by doing a year or two of dental school, then trying to get into medical school. This is frowned upon for several reasons. You are wasting valuable time and money training for an occupation that you actually have no real intention of pursuing, and you taking a seat away from a student who really wants to learn and excel at dentistry!

**FINAL ADVICE: GET CONNECTED!**

**Within TU**

* Absolutely get to know your professors! You are going to need some good letters of recommendation, so start making a good impression. Show yourself to be hard-working, reliable, and inquisitive. Talk to your professors one-on-one so they learn who you are! Introduce yourself and tell them about your career aspirations.
* Get on the **TU Pre-Professional Program’s mailing list** to receive updates and opportunities from TU’s Pre-Professional Committee, as well as invitations to speaker events, advising events, etc. These emails will also provide you with important notifications regarding the Committee Interview/Letter process, which will be required (or at least very highly recommended) for the application process. To get on the list, just send an email request to [Pre-Professional@towson.edu](mailto:Pre-Professional@towson.edu)
* Join the **TU Dental Society**. This student-led group meets approximately once a month to discuss pertinent issues, host relevant speakers, and organize or inform about community service or clinical volunteer opportunities. To join this club and email list, send an email request to [tudental1@gmail.com](mailto:tudental1@gmail.com)
* Consider joining **Minority Association of Pre-Medical Students (MAPS).** Although the club was formed to address concerns of minority pre-medical students, they also welcome pre-dent students, as many of the same issues would apply to pre-dent students. Contact [towsonmaps@gmail.com](mailto:towsonmaps@gmail.com) for more information.
* Enroll in TU Blackboard **PreDental** Community site, as well as the **Pre-professional** Community site, where various reminders and opportunities are posted; Click on Community tab on upper right of Blackboard page. Under “Organization search”, enter “Predent” – when it comes up, click on drop-down box to enroll. Repeat process to also enroll in Pre-professional, which has pre-med info, but also more general info for pre-professionals. Dr. Martin is the Biology Department advisor for pre-dental students, so make contact with her, even if you have another academic advisor.
* Join Tri-Beta, the biology honor society. See: <http://www.towson.edu/betabetabeta/prospective_membership.asp> or contact the faculty advisor for the organization, Dr. Matt Hemm (Smith Hall, Rm 483, mhemm@towson.edu, 410-704-2996). Briefly, to become a member of Tri-Beta, one needs to be a Biology major, complete 40 total credits, (12 in biology courses), and meet or exceed a Biology GPA of 3.0 and an overall GPA of 2.75.
* Join other campus groups, particularly seeking out leadership positions.

**Outside TU**

* **Online communities** can provide you with ideas and suggestions, also. The Student Doctor Network has a Dental forum with content directed to the pre-dental student. See: <http://forums.studentdoctor.net/categories/dental-forums-dds-dmd.55/>
* There is a **huge wealth of information** to be found at <http://www.adea.org/GoDental/> Consider this as a great resource when you have any questions about dental school – preparing, applying, etc.
* **Sign up for the ADEA GoDental Newsletter** at this link: <https://access.adea.org/adeassa/censsacustmast.insert_page?p_return_page=Login_Page&p_varname=p_val_arr%5b0%5d&p_colname=p_last_nm&p_varname=p_val_arr%5b1%5d&p_colname=p_alias&p_varname=p_val_arr%5b2%5d&p_colname=p_login_id&p_varname=p_val_arr%5b3%5d&p_colname=p_passwd&p_context=GODENT>. This newsletter will provide you with tips on preparing your dental school application, dates of events or enrichment experiences that can strengthen your application, and stories of other students who achieved their dream of becoming a dentist.
* Consider joining the **American Student Dental Association (ASDA).** <http://asdanet.org/value-of-membership.aspx> This membership can provide you with additional resources, some discounts on DAT preparation tools, and contacts with students in your position and students who are currently in dental school. A $63 annual membership provides the member benefits shown here: <http://asdanet.org/benefits/>.
* You can also sign up for a free email newsletter containing tips for aspiring dentists from the ASDA, here: <http://visitor.r20.constantcontact.com/manage/optin?v=001QSVz3SN0Naqe2_3FAg1Z7iBX9mPrNalctBs_eo8TIxKzPUM4yHXgE1quJP_74vE8hMcz9c8IUYWdTuqSc34CC_d9foHTDFig0Jcbaj9WSIQ3BYUj6JMGXy5o4NYj2gHEUI2e0wEIAaQ7MntzfjJktJlOfqm8Fk-5tA38EyZ4v8Y%3D> or http://www.asdanet.org/predental/
* Check out: <http://www.asdablog.com/five-things-every-predental-should-know/>.
* Shadow dentists and/or work in dental (and other specialty) offices; gain exposure to as much of the profession as you can and make contacts.
* Participate in enrichment programs. See especially the Summer Health Profession Education Program (SHPEP) **-** <http://www.shpep.org/>
* **Volunteer** in dental clinics, such as Mission of Mercy – in Reisterstown, MD<https://www.amissionofmercy.org/maryland-pennsylvania/sponsor-a-patient/volunteer/>
* Participate in summer international shadowing/volunteering with TU Dental Brigades. Email [dentalbrigadetu@gmail.com](mailto:dentalbrigadetu@gmail.com) for more information.

**Citation for these guidelines:** Martin, L., Johnson, L.S. and Silldorff, E. [document date – see first page]. *Advice and Guidelines for TU Pre-Dental Students*. Unpublished document accessed from the Biol 204 website.