

Pre-Dentistry

What is Pre-Dentistry?

Pre-Dentistry is a pre-professional program at Cornell College for students interested in pursuing careers in dentistry. Students pursuing dental school are interested in general dentistry, dental research and/or technology, or are interested in pursuing a dental specialty like orthodontics. The program is designed to help students identify both prerequisites for admission and meaningful co-curricular experiences in and out of the medical field. The program is coordinated by the Dimensions Program for Health Professions. Pre-Dentistry students are expected to meet regularly with the Associate Director of Dimensions and are strongly encouraged to attend pre-health events sponsored by Dimensions on and off campus.

Professional Resources

The following resources offer extensive, reliable information on preparing for the healthcare field, in addition to those found throughout the Dimensions Guide to Pre-Dentistry:

- [Dimensions Program for Health Professions](#)
- [ExploreHealthCareers.org](#)
- [American Dental Association \(ADA\)](#)

Pre-Dental Guide Outline

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What is a Dentist?

Dentists diagnose and treat problems with a patient's teeth, gums, and related parts of the mouth. They provide advice and instruction on taking care of teeth and gums, and on diet choices affecting oral health (Bureau of Labor Statistics Occupational Outlook Handbook, 2015). Dentists have helped improve the oral health of children, adults, and the elderly for decades. Dentists have also been a driving force in public health, pushing for fluoridated water in the United States and low-cost dental care for children. Beyond simply improving oral health, cosmetic dentistry is becoming a popular and booming field.

Dentist must complete dental school to earn a Doctor of Dental Surgery (DDS) degree and pass a series of board examinations in order to practice as a licensed dentist. [Dental Hygienists](#) and [Dental Assistants](#) work alongside dentists in the medical field.

[American Dental Education Association \(ADEA\)](#)

Cornell College Health Professions Committee (HPC)

The [HPC](#) assists current students and alumni applying to professional programs in healthcare. The HPC process results in a Committee Letter of Recommendation sent to each school the student applies to, along with all other letters of recommendation. The Committee Letter of Recommendation is signed by the 4 members of the HPC:

- Barbara Christie Pope, PhD
- Craig Tepper, PhD
- Associate Director of Dimensions (Mark Kendall)
- 1 Cornell College faculty or staff member of the student's choosing

The [HPC Guide](#) is updated annually and should be reviewed by applicants before applying for the HPC. Students can find the most up-to-date version of the HPC Committee Guide on the Dimensions HPC website. Dimensions hosts workshops every year on the HPC and healthcare program application processes – watch your email for announcements.

Applications are due to the HPC the summer before the intended application cycle begins. (For example, students hoping to start a DDS program in fall 2020 will submit all application materials to the HPC in summer 2019.) Visit the Dimensions website to learn more about the HPC application process.

[Centralized Application for Dental School](#)

[ADEA Associated American Dental Schools Application Service \(ADEA AADSAS\)](#)

[Accredited DDS Programs](#)

[Commission on Dental Accreditation \(CODA\) DDS/DMD Programs](#)

Dental School Prerequisites

A specific major is not required for admission into a DDS program. Students are advised to major in a discipline in which they are both most interested and able to excel.

The following courses are required for admission to most DDS programs:

<i>Prerequisite (ADA 2018)</i>	<i>Prerequisites for the University of Iowa College of Dentistry (2015 Cycle)</i>	<i>Course Equivalent at Cornell College</i>
8 semester hours English	English Composition and speech requirements for the bachelor's degree at the college you attended	ENG 111 (1 st Year Writing Course) & 1 additional writing course within the English department
8 semester hours Biology with lab	12 semester hours in Biological Sciences (Introductory courses and additional courses for which introductory course is prerequisite)	BIO 141 (Foundations: Cellular Biology) & BIO 142 (Foundations: Organismal Biology) & 1 additional Biology course
8 semester hours General Chemistry with lab	16 semester hours of Chemistry, including 1 year of Organic chemistry, 0.25 of which must be in laboratory work. Biochemistry is recommended.	CHE 121 (Chemical Principles I) & CHE 122 (Chemical Principles II)
8 semester hours Physics	8 semester hours, 0.25 semester hours in laboratory work	PHY 141 (Introductory Physics I) & PHY 142 (Introductory Physics II)
8 semester hours Organic Chemistry with lab	16 semester hours of Chemistry, including 1 year of Organic chemistry, 0.25 of which must be in laboratory work. Biochemistry is recommended.	CHE 225 (Organic Chemistry I Lecture), CHE 326 (Organic Chemistry II Lecture), CHE 327 (Organic Chemistry Laboratory), CHE 334 (Biochemistry)
	Well-rounded background in the social sciences; philosophy, psychology, history, foreign languages, business and accounting; and mathematics	Various

The following courses at Cornell College are prerequisites for some of the aforementioned ADA prerequisites and/or are recommended for students pursuing DDS programs:

BIO 205 (Cellular and Molecular Biology)	PSY 161 (Fundamentals of Psychological Science)
MAT 121 (Calculus of a Single Variable)	BIO 315 (Genetics)
STA 201 (Statistics)	PSY 282 (Abnormal Psychology)
BIO 329 (Human Anatomy & Physiology I)	SOC 101 (Sociological Thinking)
BIO 330 (Human Anatomy & Physiology II)	

Note: Each dental school has a specific list of prerequisites you must complete to be considered for admission. Most DDS programs require additional courses than those specified in the table above. Visit both the [ADA Dental School Admissions](#) website and DDS program websites regularly to explore program-specific prerequisites to ensure you've satisfied courses needed before applying. Be sure your Faculty Advisor is aware that you are Pre-Dentistry. It is strongly recommended that you meet with your Faculty Advisor and [Dimensions staff](#) regularly to ensure you are meeting the requirements for both your major and dental school in the proper sequence.

AP Credit

DDS programs have different rules when it comes to accepting AP credit as fulfillment of a prerequisite. If you enter Cornell College with AP credit, closely check the requirements of the DDS programs of which you intend to apply.

Community College Credit

Most DDS programs prefer that applicants take all prerequisites at a 4-year institution. Students interested in earning credit at a community college should meet with their Faculty Advisor and the Associate Director of Dimensions *before* registration.

What makes a competitive applicant for dental school?

Dental schools (DDS programs) are incredibly competitive, with many more qualified applicants applying each year than there are spots available. DDS programs today are looking for well-balanced applicants. Most dental schools offer a [holistic review](#) of applications meeting the minimum GPA and [Dental Admission Exam \(DAT\)](#) score. Holistic review is an individualized way of assessing an applicant's capabilities by which balanced consideration is given to experiences, attributes, and academic metrics and, when considered in combination, how the individual might contribute value as a dental student and future dentist.

Becoming a competitive applicant for DDS programs is a marathon, not a sprint. Students should not rush into a DDS application cycle. The "right" time to apply for a DDS program is unique for each applicant and representative of their individual aptitude for the sciences, experiences, and level of personal readiness to commit to the health profession.

Competitive dental school applicants:

- Earn high grades in prerequisites at a 4-year institution
- Demonstrate (from experience) they are aware of the dentist's role in today's medical climate in relation to other healthcare providers
- Apply to dental school only when they feel they are ready to make a lifelong commitment to medicine and have the strongest application possible
- Research the schools they apply to assess "fit" and review prerequisites *before* applying
- Reflect on and make connections between experiences leading up to applying to dental schools
 - Can discuss what they learned *from* their experiences rather than what they *contributed*
 - Demonstrate how they've applied what they learned in earlier experiences to experiences that followed
 - Are able to easily demonstrate and explain why experiences were personally meaningful
 - Demonstrate they understand the impact and purpose of their responsibilities in each experience
- Have high science and cumulative GPAs
- Earn a competitive DAT score (scores vary by program)
- Balance diverse medical experiences and other activities they are passionate about
- Can speak from experience when asked the question, "What makes a good dentist?"
- Can answer the question "Why do you want to be a dentist?" clearly and easily, demonstrating self-reflection and realistic expectations of the field of dentistry
- Have a parallel plan in mind: They know what they will do to demonstrate interest in and a commitment to medicine if they are not accepted into dental school in their first application cycle.

Review the [ADA's Dental School Admissions](#) and the [ADEA Go Dental](#) website to learn more about the dental school admission process.

Cornell College Pre-Dentistry Sample 4-Year Timeline*

Year in School	Cornell College Course	Additional Information
First Year	FYS CHE 121 CHE 122 BIO 141 BIO 142 ENG 111 1 additional English writing course	Your top priorities are becoming acquainted with your new surroundings, living arrangements, and course requirements. Students are strongly encouraged to get involved in co-curricular activities they are interested in or passionate about. (Activities do not all need to be medical-related.) New students should meet with the Associate Director of Dimensions at least once during their first year on campus. Many students will begin exploring opportunities to shadow healthcare professionals, volunteer in the community, and take part in student organizations. Hours spent in co-curricular activities should be tracked for the dental school application. <ul style="list-style-type: none"> • Students are encouraged to start thinking about summer as early as October**. • Students should review professional resources from this document and the Dimensions website to familiarize themselves with dentistry and the medical field. • Attend relevant Dimensions Pre-Health Workshops.
Second Year	PSY 161 STA 201 CHE 225 CHE 326 CHE 327 BIO 205 SOC 101	<ul style="list-style-type: none"> • Seek opportunities to work closely with faculty members on research and other projects outside of class. Narrow down co-curricular involvement to experiences that are most meaningful to you and that you are most passionate about (even if it's not healthcare related.) Move up to leadership positions or take on more responsibility in co-curricular activities. • Start looking at dental schools more closely to identify unique requirements of schools you are interested in. Read in detail about the dental school application cycles, the DAT, and the Cornell College Health Professions Committee. • Attend relevant Dimensions Pre-Health Workshops.
Third Year	CHE 202 PHY 141 PHY 142 CHE 334 BIO 329 MAT 121 PSY 282 BIO 315	<ul style="list-style-type: none"> • Continue to work up to leadership positions or take on more responsibilities in co-curricular activities. Continue to shadow in the medical field and volunteer in the community. • Be sure you've completed at least the minimum amount of shadowing hours required by dental schools you plan to apply to. • Register for the DAT and prepare by taking several full-length practice exams. (Dimensions can help you identify DAT prep resources.) Students should sit for the DAT in April, May or June of their third year on campus if they plan to apply to start a dental school immediately following graduation. • Prepare for Health Professions Committee if you intend to enter dental school immediately following graduation. Application deadlines should be verified with the Associate Director of Dimensions before the end of your junior year. (Example: Health Profession Committee applications are due summer 2016 if you hope to start a DDS program fall 2017.) • Attend relevant Dimensions Pre-Health Workshops.
Fourth Year	BIO 326 BIO 330 Complete graduation major/minor requirements.	<ul style="list-style-type: none"> • Complete secondary applications and on-campus interviews. • Attend relevant Dimensions Pre-Health Workshops.

*You should always begin with the course most aligned with your current ability. It is better to start a few courses back and earn an "A" than to jump right into the prerequisite course and earn a "B" or "C". This sample timeline includes many required, recommended, and prerequisite courses for DDS programs. Always consult specific DDS program prerequisites and with your Faculty Advisor before making course selections.

**Pre-Dentistry students hoping to enter dental school immediately after graduation are strongly encouraged to use their summers wisely in preparation for DDS programs. This includes conducting research, volunteering in the community, shadowing or interning in the field of dentistry, and/or working in the healthcare field.