



June 2024

Seniors—

Thank parents, teachers, and others who helped you.

Thank scholarship providers.

Have your final transcript sent to your college of choice.

Juniors—

ACT-July 13th
Register- June 7th

SAT- August 24th
Register August 9th

Summer 2024

Do something interesting-
Job, internship, volunteer, take a class.

Rising Seniors—

Begin working on the Common Application and others as they become available.

Craft your essay.

Finalize college list.
Tour colleges.

Prepare for fall ACTs or SATs.

College Essay: Telling Your Story

As the junior year of high school comes to an end, college application season begins. The components of a strong application consist of grades, test scores, extracurricular activities, and teacher recommendations.

And then, there are the essays. The main essay is typically the Common Application (CA) essay with seven prompts to choose from and a 650-word limit - note that they are prompts, not questions to answer: [Common App Essay Prompts](#).

The essays are your opportunity to share your voice and personalize your application, making the whole package a compelling story of YOU. Having had several years to perfect the art of an academic essay, you may find it challenging to face the demands from colleges that your essays are personal, unique, and interesting. Rarely do young people have the time for self-reflection that such an essay requires – they are so busy – but this self-reflection is important to free up the ideas that will ultimately become your best essays.

Take the time to sit quietly and think about what makes you uniquely “you.” What are your passions, life experiences, activities, and interests? What do you want the admissions officers to know about you that isn’t already in your application? Make lists; consider your life as a movie and write down the highlights and outcomes. Chat with family and friends about what they think makes you special. The essay doesn’t need to be about anything traumatic; rather, it can be about a slice of your life.

By early summer, focus on some free writing – write for at least five minutes every day- don’t stop, just write, and you’ll soon see some themes emerging. Keep refining your ideas and start building some specific outlines. Don’t worry about the prompts; if you have a variety of ideas,

connect to 1 or 2 of them later. On *August 1*, the CA is officially available and you can jump in and start completing all the informational sections and review the final and official prompts. If you have been working hard on self-reflection, free writing, and outlines, you will find it much easier to create solid drafts of your essay and complete your final version before the end of August. Aim to have your CA essay completed by *September 1*.

Share your polished essay with friends and family and ask them to give you a few words that summarize what they have learned about you. Is that what you want to say? If not, rework your essay. Show it to someone who doesn’t know your writing and see how they respond. But don’t allow others to rewrite your essay – admission officers are acutely aware of how the tone of an essay can change when a parent has been allowed to work on a rewrite!

As with all good writing, never forget your reader. In this case, it’s probably a tired, overworked, young admission officer who may well be a recent graduate of that institution – make him or her sit up and take notice when your essay appears on their monitor. As you brainstorm ideas, find ways of incorporating your personal growth and your readiness for a bigger future, and make a connection between your past, present, and future. You want your reader to see you as a mature and valuable asset to their campus community.

Remember that your best essay will be a polished and authentic story of who you are and what makes you tick. Admission officers are not looking for Pulitzer Prize-winning essays; they just want to learn as much as possible about you, and how you might strengthen their institution. Finally, if you can be vulnerable, take some risks, and share your personal story you will get to know yourself better too and that is always a great thing.

Focus on Majors: Bioinformatics

Career Paths for Bioinformatics Majors

- *Bioinformatics Scientist*
- *Bioinformatics Analyst*
- *Bioinformatics Engineer*
- *Bioinformatics Programmer*
- *Biotechnologist*
- *Biostatistician*
- *Computational Biologist*
- *Clinical Lab Technician*
- *Epidemiologist*
- *Research Specialist*
- *Technical Writer*
- *Professor/Lecturer*
- *Medical Technologist*
- *Physician*
- *Agriculturalist*

In an era where data drives discovery and technology reshapes the boundary of what we thought possible, bioinformatics stands as a centerpiece of innovation and a dynamic area of exploration. Each day we see new advancements in biology and medical technology, in part due to breakthroughs by bioinformatic professionals who are fusing science and computation. It can be confusing at first glance, but think of it as biology meets computer programming. With a growing number of new job opportunities and a high post-graduate starting salary, bioinformatics is a lucrative field of study.

Bioinformatics is an interdisciplinary major that uses the fundamentals of mathematics, statistics, biology, computer science, and engineering to study biological data. Through bioinformatics, professionals develop algorithms and systems to analyze complex data such as DNA, cellular organization, and genome annotation. They work to discover insights about health and biology for the betterment of humanity. In doing so, these scientists impact areas like pharmaceuticals, medical technology, biotechnology, and medical information

In undergraduate courses, bioinformatics majors focus predominantly on biology and computer science. Students take courses in molecular modeling, structural biology, genetics, microbiology, chemistry, and physics. They learn how to complete mathematical computations that are pivotal to biological research. Students also develop problem-solving and verbal skills. While the courses are biology-heavy, the major allows bioinformatics students to do interdisciplinary research and develop a specific lens of focus. At many universities, undergraduate students are active participants in real-world biology experi-

ments and programs emphasizing hands-on learning. Students who are strong analytical thinkers, pay attention to detail, and are diligently studious would be a good fit for the major.

It is common to pursue a Master of Science or a Ph.D. in a specific subset following an undergraduate degree, such as biological models, biomedicine, computational algorithms, or computational genetics.

Bioinformatics does share certain characteristics with other fields; however, it is much more interdisciplinary. Work within bioinformatics would substantially involve software and computer tool development. Additionally, while it does fall under the umbrella of public health-related work, bioinformatics is predominantly centered on the cellular level of the human species. If computer programming is not your passion, explore similar fields overlapping with biology such as:

Biostatistics is the application of statistical techniques to health-related scientific research. Professionals in this field gather data related to living things and design research studies. Biostatisticians will often pursue research outside the scope of human health since studying plants and animals is crucial to analyzing certain diseases.

Biomedical Engineering majors study the overlap of engineering and principles of biology and chemistry. They learn how to create and design medical devices that can aid in the treatment of diseases, and to develop new technologies that can repair the human body. Biomedical engineers will sometimes also use computer programming to research and analyze diseases.

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Financial and Legal Matters for New College Students



When teens turn 18, they love the idea that they are now legally adults. They can vote, serve in the military, sign contracts and even get married. Emotionally they might still be our babies, but the law considers them adults.

That being said, there are a few legal and financial issues that should be addressed before your teen goes to college. If your child has turned or will turn 18 during the next year, they are legally an adult, and you, their parent, lose the legal authority to make decisions on their behalf. That means you have no legal right to see their grades, to manage their finances (although you remain responsible for paying their college tuition), or make medical decisions, or speak with their doctors. So, before they go off to college, consider asking them to sign some documents that will allow you to keep informed.

FERPA release: with your child's permission, you can speak with the college about their performance. Colleges often have their own FERPA release forms, so ask your student's college for a copy.

HIPAA Authorization: this allows you to access your child's health records and speak to their doctors about medical issues.

Advance Care Directive for Health Care: allows you to act on your adult child's behalf in the event that they are incapacitated and unable to make decisions for themselves.

Durable Power of Attorney: allows you to act on your adult child's behalf regarding legal or financial matters.

You can get the previous three forms from your family lawyer. Each of these forms can be revoked at any time, but having them in place while your child is away at college may provide the whole family with extra peace of mind.

Here is a link for more information:

[Make Sure These Health Forms Are Sorted Out Before Your Kid Goes to College](#)

This is also a good time to address money management issues.

Set up a bank account that will allow you to easily transfer money to their account. An online bank account may be the most useful, especially if the bank has special student accounts available that will give parents access to bank information. Find out which banks have ATMs close to campus—college kids usually don't write many checks. Be sure to check on fees for using an ATM that's not part of your bank's network.

Make plans to protect student property. College kids tend to have a lot of valuable electronics and computer equipment. Renter's insurance can protect your investment if these items were to disappear. Your homeowner's policy might also cover dorm room possessions—check with your agent.

Health insurance: check out options provided by the college and compare these policies with your existing family medical coverage.

Car insurance: check with your agent. If your child does not have a car at college, you may be eligible for a discount on your auto rate.

Discuss credit card dangers: college students are besieged with credit card offers—discuss the difference between high-interest fees that credit cards may charge and bank debit card options.

Focus on Majors: Bioinformatics (continued from page 2)

Computational Biology students use mathematical and computational methods as a means to address experimental questions in biology. Using these methods, computational biologists study biological, behavioral, and social systems and create practical applications. Although similar to bioinformatics, computational biology is viewed as a subset of biology whereas bioinformatics develops the tools that are used in biological experimentation.

Over the next ten years, it is predicted that we will see more than a 30% growth in demand for mathematicians and more than a 20% growth in demand for computer and informatics scientists. Bioinformatics majors are well-positioned to enter a broad range of fields that require specialized skill sets. The interdisciplinary nature of computational biology also makes the degree highly valuable. While they can engage in research and be employed through research

organizations and universities, bioinformaticians are more likely to work for an industrial or corporate employer, such as pharmaceutical or biotechnology companies. Daily work centers around writing code and evaluating results using computation and software tools. Importantly, these data may be used to develop and revolutionize new treatments and medical products.

Enhancing Learning Through Online Coursework

Regular high school courses can get monotonous, and with a schedule packed with AP and honors classes, it can be difficult to break away and explore new topics. But what if you could dive into something completely different? Could you picture yourself studying the behavior patterns of sharks? What about delving into the philosophies behind social protests, or immersing yourself in an introduction to Italian opera?

Renowned institutions and industry leaders have opened their virtual doors, providing a wide array of free online courses called Massive Open Online Courses, or MOOCs (rhymes with Kooks!). EdX, a non-profit MOOC operator created by Harvard and MIT in 2012, is now home to more than 20 million learners. Coursera, a for-profit venture, has reached over 75 million students. Students are able to choose from thousands of courses ranging from the unconventional, such as hypnosis 101, to the practical, such as programming, physics, and nutrition.

The hallmarks of MOOCs are reflected in their acronym—the enrollment is huge, they are open to whoever wishes to take part, and generally are free and carry no credit. The instructor may be a renowned university professor, though other classes are simply taught by engaging instructors who make learning the material fun. Usually, MOOCs consist of video lessons, readings, assessments, and discussion forums. The most successful courses use short video lectures followed by a quiz to make sure users understand the material.

Many MOOCs require homework and some offer proctored exams. The material can be engaging and interactive, and there are often study groups composed of fellow students to help ensure learners get more out of the class. As the courses are self-paced, it provides a flexible schedule for those enrolled.

To access these MOOCs, just use your search engine! Top educational institutions such as Harvard, Stanford, and MIT, as well as corporations such as Microsoft and Google, provide online courses. There are also many popular hosting platforms, including EdX, Coursera, Udacity, and FutureLearn.

It can be difficult to narrow down which courses you want to take when there are so many options. Try making a list of a few subjects you're interested in and look through different courses on your desired topic. Reviewing the course content, necessary prerequisites, and course level, as well as evaluating time commitment, can help you find a MOOC that fits your schedule. It is also beneficial to search for reviews and feedback, which can offer insight into the quality of the course and learning experience.

Although MOOCs may not always offer college credit, they provide students with the possibility of studying subjects beyond the scope of a traditional high school curriculum. Taking a MOOC could be a constructive way to keep school breaks fun and intellectually stimulating. MOOC exploration can help students investigate potential college majors, or it can simply serve as an indulgence into the pleasure of learning.

College Expert

3588 Woodland Trail
Eagan, MN 55123

651.263.5925

contact@CollegeExpertMN.com

www.CollegeExpertMN.com