



## May 2020

**1<sup>st</sup>** – Common reply deadline for college enrollment (check college websites; some colleges have extended this until June 1st)

### SAT Cancelled

#### AP exams

45-minute computer-based tests

Juniors – work on resume and college list

Talk with 2 current core-subject teachers about writing your Letters of Recommendation – discuss with your college counselor

## June 2020

### SAT Cancelled

#### 13<sup>th</sup>—ACT and ACT plus Writing

Seniors – thank teachers and others who helped you

Thank scholarship providers

Have your final transcript sent to your college

## Choosing a Gap Year

The history of the gap year, typically the year between high school and college, is long and varied. It was first 'named' in the '60s in the UK when Nicholas Maclean-Bristol created *Project Trust* that sent three volunteers from the UK to Ethiopia. The primary purpose for these post-World War II teenagers was to promote peace and understanding, in hopes of preventing another great war. Several gap year companies were subsequently formed and several still play an important role today.

The first gap-year company in the US was created in 1968 in Worcester, MA – Dynamy – with the goal of building young peoples' self-confidence, encouraging an exploration of their passions and developing a deeper understanding of the importance of community.

Since those early days, the notion of high school graduates having the ability to complete a year of community service, travel, education, enhanced global understanding and the development of greater self-awareness, before entering the college classroom has grown in import and popularity. Here in the United States, it has been much slower to catch on because parents were anxious that their offspring would end up walking away from their university place, and colleges were nervous that their bills might not get paid if many first-year students failed to show up for class. Now, those fears have proven to be without merit and many more parents and colleges are encouraging their students to consider taking a gap year. This year, with

the uncertainty surrounding the reopening of colleges in the fall of 2020, a greater number of students than usual are contemplating taking a gap year.

The benefits of a gap year are tremendous. Students may remain close to home, volunteering locally, taking an evening class in a foreign language, caring for aging relatives, or working to make some money for college – or all of the above! Others with greater resources may choose to travel overseas to work with endangered animals or impoverished communities, staying with a family and learning a new language. Some students choose to participate in an organized gap year program either overseas or within the US, while others split the year between six months of work and six months of community service. Many types of students pursue this year of personal growth from good students to those who struggled in high school. Today's teens are often so pressured, so busy, and can become burnt out and need a break before returning to the classroom. Colleges want students to arrive ready to learn, and many may need some downtime before hitting the books again.

In 2015, the National Alumni Survey revealed that 92% of students who completed a gap year gained both important life experiences and grew personally. The former Dean of Admissions at Middlebury College, Bob Clagett, created a methodology for tracking the academic rating of incoming gap year students and found that those who completed a gap year (continued on p. 3)

## Career Paths for Biotechnology Majors

- Animal Technician
- Associate Scientist
- Bioinformatics Specialist
- Biotechnology Technician
- Calibration Technician
- Engineering Technician
- Forensic Examiner
- Greenhouse Technician
- Health and Safety Specialist
- Lab Technician
- Medical Technologist
- Quality Assurance Technician
- Quality Control Technician
- Research Associate
- Seed Production Technician
- Technical Sales Representative
- Veterinary Assistant

## Majoring in Biotechnology

Evidence of biotechnology is everywhere. You can find it in the vitamins you take each morning, the flu and COVID-19 vaccines you get each year (wishful thinking), and in the production of most foods you can find in the grocery store. Because biotechnology is used in many fields and because the job market for it is projected to grow, it is a strong subject to major in.

Biotechnology combines molecular life sciences and engineering to develop products in a variety of fields, including agriculture, health care, and the environment. Because biotechnology is rooted in technological development, major programs often require both lecture and lab courses.

Students majoring in biotechnology will gain experience using several kinds of technology. Some examples are genetic engineering (the modification of genes in an organism to produce more desirable traits), bioprocessing (the use of living cells to create a product), and biocatalysis (the use of enzymes to speed up chemical reactions in organic material).

Typical courses in this major include general biology, cell biology, organic chemistry, biochemistry, bioinformatics, tissue culture methods, virology, and immunology. Because biotechnology is used in a wide variety of biology focuses, students will get to specialize in aspects of biology that interest them. Concentrations offered may be in bioinformatics, genomics, pharmacogenomics, computational chemistry, and molecular modelling. In addition, some programs require research projects, either individual or with a professor.

Students gain many skills as a biotechnology major. In addition to a nuanced understanding of biological sciences, students become adept with technological processes, develop strong critical thinking capabilities, gain skills in quantitative analysis,

and learn how to apply theory to practical lab work. These abilities prepare students for a variety of jobs in different fields.

Biotechnology majors can work for many different organizations because biotechnology is applicable to the agriculture industry, the health care industry, and also to environmental industries. Biotechnology in agriculture is used to develop methods to improve food growth or durability (genetic modification, plant growth hormones, and food additives). In the health care industry, biotechnology is used to create and improve vaccines, develop medicines, and produce vitamins. Students can also improve the environment by creating methods to detoxify chemicals.

Biochemical development engineers can work in any of these fields. Students who enjoy using their knowledge to create and produce new products might enjoy this profession.

Students may also work for the government as an environmental health and safety specialist. These specialists test to ensure that corporations meet environmental and safety regulations. This job can sometimes be dangerous; it often requires good communication skills, attention to detail, and physical stamina. If majors enjoy overseeing regulations but are uncomfortable with the danger aspect of an environmental health and safety specialist's work, they may enjoy work as a quality control analyst. Quality control analysts test a company's materials and finished products to make sure they are made to standard.

Students who enjoy solving mysteries may be interested in becoming a forensic scientist. Forensic scientists collect and analyze chemical and biological evidence from crime scenes.

### Financial Matters: Paying Your Child's College Bill



A few months before your child starts college, you'll receive a bill from the college for your child's first semester (or quarter) expenses. The college will deduct any financial aid or scholarships, and the bill will show the amount you – the parents – will need to pay before school starts.

If you have enough on hand to pay the full amount, simply write out a check and mail it in by the specified date. If you can't pay the full amount, or prefer to break the bill down into smaller payments, you have several other choices. Here are two common options, along with their pros and cons.

**Installment Payment Plan.** Many colleges offer deferred payment plans that let parents spread payments over the course of the school year. A typical

plan divides payments over nine or ten months. For example, if your balance is \$10,000, you'll pay \$1,000 a month for ten months.

Before signing up for an installment payment plan, read the fine print carefully. Most plans include a service fee, which is usually under \$100. Some plans may also tack on interest, and there may be added fees for late payments or for paying by credit card. Some colleges manage the plans themselves, while others use a third party service firm.

However, if you can't or decide not to pay the entire bill all at once, an installment payment plan frequently works out to be the least expensive and easiest way to distribute payments over the course of the year.

**Parent PLUS Loan:** Parent PLUS loans are Federal loans designed to help parents pay for college costs. Parents may borrow up to the total cost of attendance, minus any other financial assistance received by the student. Repayment begins 60 days after the loan is disbursed, although some par-

ents may qualify to defer payments until after the student leaves college (*note*—interest continues to accrue during deferment).

The current interest rate on PLUS loans is 7.08%, which is fixed for the life of the loan. There's also a loan origination fee of 4.236% of the amount borrowed.

To apply for a PLUS loan, your family will need to complete the FAFSA financial aid application. Some colleges require additional paperwork.

Although the interest rates on PLUS loans are usually lower than a loan from a bank or credit union, the interest rate is higher than for Federal student loans. In general, it's smart to let your child accept the maximum amount of any Federal student loans they've been offered before taking on PLUS loans for yourself. And, as with any loan, you'll need to consider the implications of borrowing more than your family can comfortably pay back. Still, used wisely, parent PLUS loans can help families finance their child's college costs.

### Choosing a Gap Year (continued from page 1)

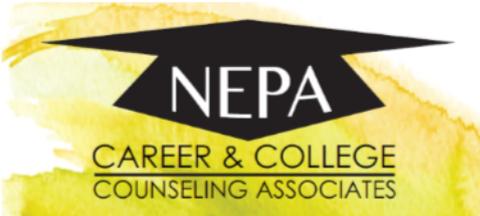
attained higher college GPAs than those who didn't, often even higher than what would have been predicted by their high school achievements. Clearly, this is an option that benefits both the colleges and the students.

A great way to start researching options for a gap year is to attend one of the USA Gap Year Fairs. If an organized gap year fails to entice, then local/national options abound. One example is City Year that provides service opportunities in many parts of the country. Students may choose to seek out an internship or employment within a field of special interest. They can

work with animals, indulge their passion for creating art, study a new language abroad, get their hands in the dirt, or learn more about other cultures in an immersion program.

It is important to stay on the college path in high school, just like your peers. Start your college search in 9<sup>th</sup>/10<sup>th</sup> grade, do visits and research in 11<sup>th</sup> grade, work on essays before 12<sup>th</sup> grade, submit your applications and make your decisions, just like your peers. During your college visits, you might even chat with someone in Admission about your ideas for a gap year program. The information will be

added to your file and will be of interest during application review. Once you have accepted your offer of admission, you will need to write to your college to formally request a one- or two-semester deferment. (Please check first on gap year deferral policies at the colleges that interest you.) You'll still have to pay an enrollment fee to hold your spot but let them know quickly so your seat can go to someone on the waitlist. Enrolling in another institution is never permitted during your gap year, but other than that, the world is your oyster and almost anything is possible. So don't hesitate – be brave, branch out, grow and you'll be richer in every way.



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## Virtual Summer Programs

Many high school students look forward to spending part of their summer vacation engaged in academic study on a college campus. These enrichment programs have allowed students to dive deeply into an area of interest, to engage in research, or to study a subject not available through their high school. As an additional benefit, students have been able to try out life as a college student, practicing time management and living away from their home and family. Unfortunately, Covid-19 has led to the closing of nearly all of these programs. So what can you do with your summer now?

Many colleges have moved their summer offerings online. Although you'll have to forgo living as a college student, you will be able to indulge your desire to learn something new. Check out individual college websites for virtual summer programs if the suggestions below do not fit your needs. Many options are available through Brown, Cornell, Yale, Purdue, Georgetown, Washington University in St. Louis, Emory, Tufts, UCLA, USC, Notre Dame, Harvard, Johns Hopkins, The University of Rochester, Boston University along with many other colleges.

The Great Books Summer Program hopes to be open on campuses this summer but they are also proactively building Great Books Online—an innovative new way to bring students and professors together to discuss great literature. Students will be able to choose which program to attend. More information at [greatbookssummer.com](http://greatbookssummer.com).

Online creative writing classes can be found at

[The Iowa Young Writers' Studio](#)

[The Writer's Studio in NY Online Courses](#)

[Writing Classes.com](#)

Concordia Language Villages hopes to run in-person programs in Minnesota starting July 27. It's also offering week-long online programs for several foreign languages throughout the summer and online four-week high school credit programs with 180 hours of instruction. [www.concordialanguagevillages.org](http://www.concordialanguagevillages.org)