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30 S 15th St 15th floor
Philadelphia, PA 19102, USA
1-855-572- 8863
info@pioneeracademics.com



www.pioneeracademics.com



2021 proved to be one of the most challenging years for both Pioneer admissions and applicants

A Letter from Pioneer Academics' Director of Admissions



Dana Silk

Director of Admissions

2021 proved to be one of the most challenging years for both Pioneer Admissions and its applicants as the interest in our program continued to rise. We saw an unprecedented 3016 applications for the 2021 summer term. While we were awed by the caliber of candidates, and humbled by the amount of interest, we were also saddened by the number of impressive applicants to whom we could not extend offers of admission – almost 75%. We are therefore working with our internal teams to offer our original research opportunity to an increased number of excellent scholars.

Pioneer proudly maintains a comprehensive evaluation process in which we thoroughly assess applicants' transcripts, teacher evaluations, essay quality, test scores if available, and interview performance. Our in-depth assessment involved more than 3,500 interviews this year, a massive effort we undertake to understand each candidate as a person, not just an application. We were tasked with establishing potential, capability, and passion, maintaining our trademark focus on consideration of students' values, commitments, and authentic

interests. More so than in past years, leadership, service, character, and communication took on greater importance, and our interview conversations allowed us to better evaluate these factors and establish genuine understanding.

It is a privilege to lead Pioneer Academics' Admissions Team. I am so proud of the strong interest we receive from incredibly gifted students; it is a daunting task to select from such a talented applicant pool. On behalf of the Admissions Team and the entire Pioneer organization, I want to extend my gratitude to all candidates and my congratulations to those who have embarked on their research journey. We are committed to expanding our programming in 2022 and beyond, while sustaining the highest standards and enforcing the rigor that is fundamental to our core values.

PIONEER NEWS

Seasoned expert on gifted education leads Pioneer's new function — Academic Research and Development

We are excited to announce that a new function — Academic R&D — has been added to our academic department to further drive Pioneer's innovation and learning delivery.

Leading this new function is Brian Cooper, who brings 30 years of education experience. Brian is the immediate past Director of Educational Innovation and Online Programming of Duke University's Talent Identification Program (Duke TIP). There he developed and managed innovative programs for talented students from around the world for 25 years. Before transitioning to Duke TIP, Brian was an award-winning AP English literature and composition teacher.

Pioneer, committed to maximizing each scholar's potential and to establishing the highest standards in academic advancement, developed a unique academic system in 2012 and has been reinforcing it continuously. Academic R&D will study Pioneer scholars' learning outcomes, research pedagogical best practices, and drive innovative development to challenge and inspire students.



Oberlin college website features ground-breaking collaboration

We are honored that Oberlin College has dedicated a full page of its website to its collaboration with Pioneer Academics. The page asks an important question: Why this collaboration? It answers with the significant principles that Oberlin and Pioneer hold in common: rigorous oversight to ensure exacting academic standards, and quality in both pedagogy and student learning outcomes. In short, as Oberlin states, academic passion is paramount, and access and diversity are pivotal. A formal collaboration was begun in 2016 and continues to develop on many fronts.

More on Oberlin's website: <https://www.oberlin.edu/oberlin-pioneer-partnership>



Oberlin's Partnership with Pioneer Academics

The partnership between Oberlin College and Pioneer Academics has created an unprecedented online education model. Through this collaboration, outstanding high school students are able to conduct accredited undergraduate-level research following concrete, holistic standards.



PIONEER NEWS

2020 Pioneer alumni create a video to welcome 2021 scholars to the Pioneer community

23 Pioneer alumni, from 14 countries across six continents, came together on their own to create a film that shares the Pioneer spirit with the incoming 2021 Pioneer scholars.

2020 Pioneer alumni Catherine Kwon from the US, and Reymajan Jumaniyazova from Turkmenistan, initiated the project. They wanted to capture the vibrant, global, passionate atmosphere of the Pioneer community and welcome the next year of scholars to the program.

Checked out at <https://pioneeracademics.com/>, Watch the video to see their creation.



Pioneer's Summer 2021 term kick-off

Pioneer Academics' summer-only term got off to a super start! This year, we received 3,016 applications from 64 countries around the world. 703 students were selected to become scholars in our rigorous, exciting research program. A scholar from the U.S. wrote to admissions and shared her excitement:

When I received the email notification telling me that I had been accepted to the program, I cried. I was overjoyed that I could participate in such a wonderful opportunity. Most of all, I was grateful that the admissions team believed I had the potential to excel in such a rigorous program.

Pioneer values each scholar's intellectual curiosity and academic drive, and we are so proud that the scholars are excited about the rigor of Pioneer.



Pioneer's academic system ensures that student research is respected

Pioneer Academics was founded because we believe that high school students are capable of doing authentic, original research, but are in need of a platform for their research to be respected. Pioneer's academic system was designed to create such a platform, providing standards and oversight that ensure each scholar's research is authentic, original, and respected. Research is hard work. It involves ingenuity, creativity, and long hours of writing. Pioneer's academic system makes sure that its scholars get the credit they deserve for this work.

In order to be respected, all research must have these three elements: originality, validity, and legitimacy. Originality refers to relevance and contribution to the field--does the research create new knowledge? Validity is determined by the research methodology; the research question must be falsifiable, the procedures must be replicable, and there must be a degree of precision. Finally, legitimacy means that there is

elements in order to produce respected research, keeping in mind the specific challenges faced by young researchers. To build a foundation of legitimacy, Pioneer certifies the authorship and authenticity of student research according to rigorous standards and joining oversight with Oberlin College. Because high school students may face biases about the circumstances under which research is conducted with university professors, Pioneer makes sure the context of the research program is transparent and clearly explained. Students are held to high standards of academic integrity like all other members of the global academic community.

Moving up the pyramid to validity, Pioneer's academic system ensures each single research paper's legitimacy. Doing so is how Pioneer earned its reputation. The system also provides students with training in research methodology to help them develop falsifiable research questions and investigate them using methods that are both precise and replicable. After these seminars in research methodology,



trust in the work's authorship, authenticity, and academic integrity. Of these three elements, originality is often the most exciting for students and tends to be their primary focus. After all, who doesn't want to move beyond textbooks to discover new knowledge? However, without an emphasis on validity and legitimacy, research is unlikely to be respected. In fact, the three elements can be visualized as a pyramid, with legitimacy forming a solid foundation of trust and integrity upon which a valid methodology and original research can stand.

Pioneer's academic system is specifically designed to help students meet the standards of each of these three

Pioneer scholars work closely with faculty mentors who guide them through the research process. They are provided resources normally unavailable to high school students, such as access to Oberlin's online library and databases. Finally, Pioneer's academic system creates the perfect environment for students to come up with original research questions. Pioneer does not accept literature reviews for its final paper requirement; all students must conduct original research. To make this possible, Pioneer has designed its academic placement system to include highly specific research concentrations within its broader research areas. This allows students to dive into a particular subject and develop the deep knowledge necessary to ask original questions and come up with creative ideas.

A black and white portrait of a young man with long hair, wearing a fedora and glasses, looking directly at the camera. The text is overlaid on the lower half of the image.

The Three-Year Pioneer Veteran

YOU'RE NEVER TOO YOUNG

Damian Musk



Damian Musk

2019, 2020 and 2021 Pioneer Scholar

High School: Ad Astra School

Pioneer Research Topics:

Simulating the Computational Differences Between the Discrete Fourier Transform and Quantum Fourier Transform (2019)

A Thermal and Structural Analysis of Biomaterials in the Qinghai- Tibetan Plateau (2020)

In progress (2021)

Pioneer scholar Damian Musk, from Ad Astra School, does things at his own pace and in his own time. Very often, that means much faster and much earlier than his age peers. For instance, when he was in kindergarten—an age when most children are learning the alphabet, beginning to sound out words, and dreaming of becoming firemen—Damian read biographies of Albert Einstein and Marie Curie and realized he wanted to become a physicist. His reason? “To gain a better grasp of how the universe works and our place in it.” This remains Damian’s motivation for scientific study. His ultimate goal is to “make contributions to scientific understanding comparable to those of the people I have been admiring for so long.”

The Pioneer record holder and a seasoned Pioneer scholar

Now 14 years old and a first-year student at Stanford Online High School, Damian was the youngest student ever accepted for a Pioneer Research Program—at 12 years old. (This is a record he is likely to hold for a very long time.) Most of the students selected into Pioneer are 11th graders, and only 20% of the selected students are 10th graders. A 12-year-old Pioneer scholar is legendary. Moreover, Damian has completed the Pioneer program twice thus far, in two different fields. He also holds the record of being the youngest nominee for the Pioneer Research Journal for two years.

It was Damian's computer science teacher who suggested he apply for the Pioneer Research Program. His study was in the research concentration of quantum computing. For his research topic, Damian focused on "the computational properties of the Fourier transform when used in quantum computing." His work involved four steps: researching the background, designing the methodology, building and describing the computational model, and finally reflecting on the possible future significance of his model.

Damian's second research concentration was in the more tangible field of materials science. He investigated changes in "the material structure of vital biopolymers" in response to global warming-induced temperature changes. The materials Damian studied were from the Qinghai-Tibet Plateau, "a region often studied in climatology research for its extensive permafrost." His hands-on work once again involved hands on the computer, since once again his methodology was to analyze data and construct a computer model. And the model showed, not surprisingly, that flora in a region subject to warming temperatures would most likely experience a reduction in cell wall integrity.

III. THE DEFINITION AND USE OF THE CLASSICAL DISCRETE FOURIER TRANSFORM

Before introducing the classical counterpart: the discrete Fourier transform (DFT). We map a sequence $\{x_n\} := x_0, x_1, \dots, x_{N-1}$ into X_0, X_1, \dots, X_{N-1} , such that:

$$X_k = \sum_{n=0}^{N-1} x_n \cdot e^{-i \frac{2\pi}{N} kn},$$

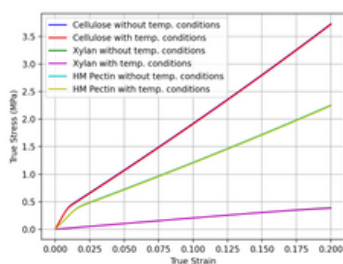


FIG. 7. The stress-strain biopolymer curves with thermal input for the year range 1961-2005.

A "Renaissance Teen"

Given his exceptional skills with the computer, it would be easy to picture Damian as a young computer nerd. But that picture would be far from reality. Damian has a very broad range of interests, some of them again unusual for his age.

Music is one of Damian's primary interests. He plays both classical piano and flute. He says he tries to practice the piano for two hours a day and the flute for 45 minutes, although he admits that "it is often tough to make time for both." When it comes to listening, classical music is Damian's preference, with Debussy and Liszt at the top of the list, and Poulenc and Rachmaninoff also among his favorites.

Then there are active sports. Damian participates in competitive fencing, gymnastics and Brazilian jiu-jitsu—that is, when it's possible. Quarantine has shut down those activities for the time being.

And food. Damian is a vegetarian, whose favorite food is Tofurkey, and a baker who particularly likes to make meringues—especially Pavlova cake, a New Zealand recipe for a meringue cake topped with whipped cream and fresh fruit (Damian's choice is strawberries)—and Baked Alaska and, of late, gingerbread. Molecular gastronomy—the study of what cooking does to food on the molecular level—has been one of his interests since kindergarten.

And, of course, Damian reads—philosophy and math and physics papers more than fiction. His favorite authors would probably appear on few teenagers' lists—Borges, Kafka, Camus, Beaudrillard. And he writes. Damian is hoping to publish a psychological novel that he has been working on, although he thinks he may have to self-publish it.

Science is represented among Damian's "hobbies" as well. He participates in a robotics team, as "one of the lead programmers for my VEX AI team."

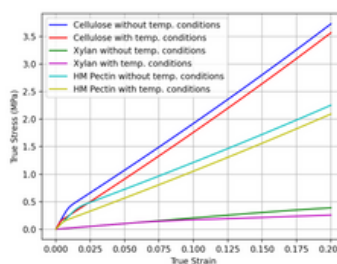


FIG. 9. The stress-strain biopolymer curves with extrapolated thermal input for 50°C.

Damian's Pioneer research paper



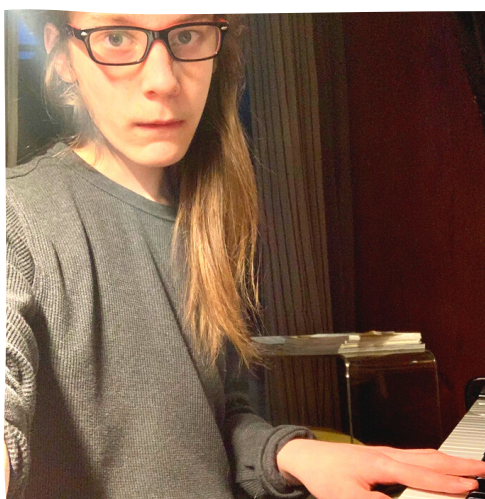
A Pioneer Ambassador

Given Damian's many accomplishments, it's not surprising that he has been invited to be a Pioneer Alumni Ambassador, with a particular focus on reassuring younger students who may feel a little timid about undertaking Pioneer's rigorous application process. Damian has a message for such students. "If you are concerned you are too young to apply to the Pioneer Research Program, don't be! You do not need to have won a Nobel Prize in physics to become a Pioneer scholar." Damian suggests that anyone who is comfortable doing AP level work is probably ready for a Pioneer Research Program, although he did find his Pioneer studies to be "a little more rigorous."

In addition to his official Alumni Ambassador status, Damian promotes Pioneer's carefully structured program when he talks about many aspects of his own experience. Although he didn't have as much interaction with his cohort as he would have liked, he did form two lasting friendships, one with a member of his cohort and another with a friend from another field who is also a Pioneer Alumni Ambassador.

Damian was particularly impressed with the quality of instruction when his Pioneer professor "thoroughly researched one of the main models my paper relied on," becoming an expert in it so he could guide Damian's work, even though it was outside his own main field of expertise.

The use of the Oberlin Library database was a real help in "making the identification of relevant research tremendously easier." The Pioneer Writing Center offered "detailed and generally useful feedback integral to refining my original draft into a far more polished final paper."



Preparing his two papers for submission to the Pioneer Research Journal was a process that "mirrors that of a modern academic journal's," and that gave Damian experience that will undoubtedly be part of his work in the future. Damian also praises the content and quality of the Journal. "Some of it outshines regularly cited research."

Next Steps

Damian has a number of goals, both short-term and long-term. In his own words: "I hope to get accepted to MIT, Stanford, or Caltech and major in physics as an undergraduate,

possibly with a double major (or double minor) in math and a minor in chemistry. This should hopefully allow me to pursue a PhD in theoretical physics as a graduate student, by which point I hope to conduct research on particle physics at CERN and hopefully cosmology and astrophysics research as well, possibly at Stanford's Kavli Institute. Eventually, should there be any sliver of a chance at success, I hope to open my own modern physics research institute."

He is not in a rush to apply to colleges, however. First, he plans to remain at Stanford Online High School for a full four years to take advantage of its "wealth of math and physics courses." He also is working toward a personal goal of being a medalist in the International Physics Olympiad before he begins college, and has completed the first of three major challenges.

Damian is modest about his expectations of meeting his goals, but perhaps no one but Damian himself would be surprised when he accomplishes "my ultimate goal of making contributions to scientific understanding comparable to those of the people I have been admiring for so long."



Faced with college application pressures, pursuing authentic interests may seem impractical for rising seniors; COVID-19 is exacerbating the problem

People familiar with Pioneer know that our values and principles are centered around empowering students to pursue their authentic interests. Experts debate how the pressures of the college application process affect students' decisions about their pursuits. Pioneer has regularly invited students and educators to discuss this matter.

Many people hoped that college admissions office decisions to forgo testing requirements would alleviate these pressures. Instead, the COVID outbreak fueled them. The test-optional status increased applications to selective institutions, decreased admissions chances, and exacerbated students' rising stress levels. Logically, students feel increased pressure to "produce" achievements they think admissions officers want to see.

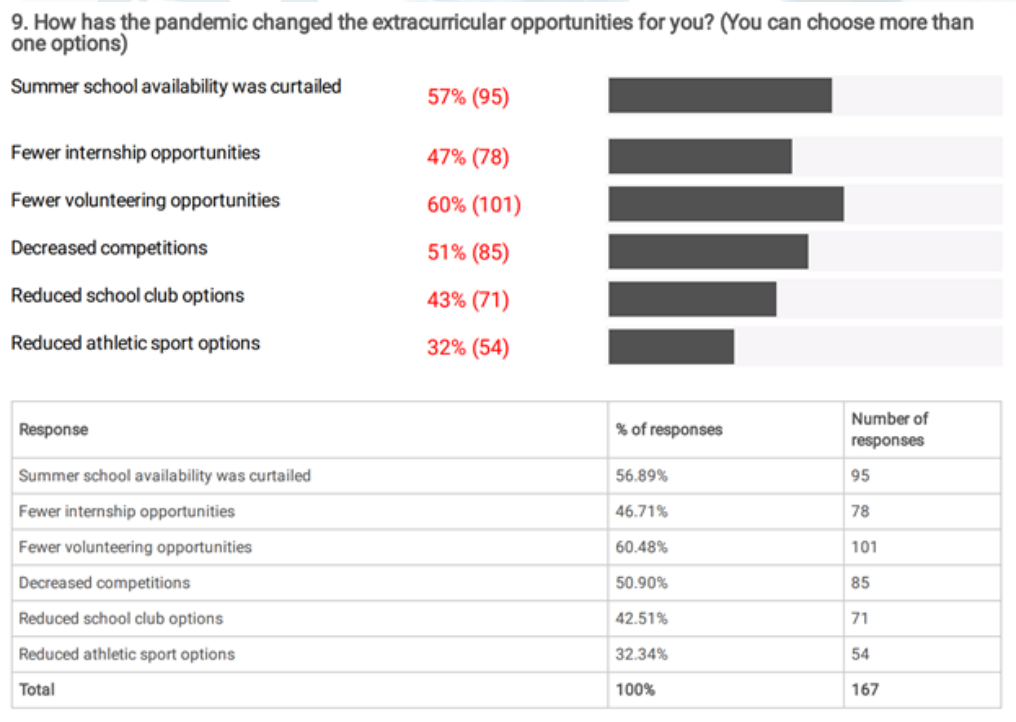
Pioneer strongly advocates protecting and nurturing students' genuine interests. We very much care

about students' desire to balance their personal interests against application pressure, and we like to share their voices with the greater community.

We recently conducted a survey among Pioneer scholars about how they sustain their interests when swirling in the tumultuous tides of college application season. We appreciate that 167 Pioneer scholars completed a survey we prepared. Their responses are intriguing.

Note: as this survey was sent to Pioneer alumni, the respondents may not represent the general high school-student population because Pioneer alumni are an academically driven group. For example, for those who did report SAT scores in their 2020-2021 applications, the average 11th grade applicant's score in their junior year was 1515.

How did the pandemic affect summer or extracurricular-activity options? COVID curtailed many activities. Most impacted were internships, volunteering, and summer school options.



The pressures of college application cast a shadow on the joy of pursuing genuine interests. In order to stand out in the college application process, students feel pressured to differentiate themselves. 96% of respondents indicated they believe differentiation is important. 78% felt that they would have cared about differentiating themselves from their peers regardless of the college application process. However, 86% of respondents agreed, to a greater or lesser extent, that their extracurricular choices were designed around application strategies. This indicates that students may not have enjoyed full freedom to pursue their interests because they wanted to tailor what they do to application strategies.



Pursuing genuine interests in high school can be a luxury, and it requires students to be determined to protect those interests. The good news is that 80% of respondents had enriching summers with two or more activities despite the pandemic. 42% said they would have done the same activities if they had not needed to prepare for college applications, while 58% of them expressed that they would have spent their summers differently. We'd like to call on all educators to hear their voices and to protect their interests.



If college entrance pressure were not a factor, scholars would pursue activities that are interesting and intellectual anyway. (Below are some quotes directly from the survey)

- "I would use the time saved from not working on college applications to travel and spend time with friends. I would still do the same activities that I'm currently doing because I really enjoy them."
- "Spend a little more with friends, save time from studying SAT, but still would've tried to fill my summer with activities that draw my interest."
- "I also want to volunteer or have my own project in my community."
- "Learning Spanish and doing art."
- "Read books, travel, and teach my junior schoolmates"
- "Doing a looot of sports, travel in different countries and learn their languages"
- "I would have spent it by reading my favorite novels along with spending time learning a couple of concepts relating to data science"
- "Doing martial arts or investing"
- "Spend all my time reading"
- "The offline hands-on robotics program"

No single organization or individual can alone change the reality of the college admissions industry. Pioneer is committed to sharing our observations and students' voices. When these voices are strong enough, they will echo throughout the entire space, and then students' authentic interests will have the best chance to be protected.

What are the changes students want to see in American college applications? (below are some quotes directly from the survey)

- "College lottery ~ I just have a general problem with padding culture, which is a huge problem. It's sad, but it's a consequence of the college admissions system."
- "Allow increased dual enrollment for high schoolers to get the college experience"
- "Make it more genuine instead of forcing kids to do stuff they don't want to do just to get into college"
- "Standardized tests are still something that makes a big difference in applications (at least it's what it felt), especially the APs and SATs etc."
- "I would like for students to have no access to external help during the college admissions process (other than from their teachers at school) since they gain an unfair advantage."
- "I wish each college had the same essay prompts"
- "A large part of the application process takes place from summer term of 11th grade to January of 12th grade. I would change the process so that applications take place after the end of 12th grade, so students can work on their applications without distraction and on their exams without distraction. Failing this, I would make the process more spread out, so students aren't as stressed during this process"
- "Require less on standard testing"
- "Clearer guidelines than 'show your authentic self'"
- "I'd remove all requirements and see what is done only for college and what is done just because that thing is his/her interest."

2020 Pioneer Research Program: College Admission Results

The following is a list of results of 681 Pioneer scholars who reported results after applying during the 2020 admissions season.

Average SAT Statistics: Evidence-Based Reading=730, Mathematics =785

Average TOEFL Score (International Students): 113

(Note: Above scores are final scores students used in their college applications. 638 students reported these final test scores to Pioneer.)

Average ACT Statistics: 34

Average IELTS Score: 8

U.S. Universities/Colleges

American University (2)
Amherst College (7)
Appalachian State University
Arizona State University (8)
Ashoka University
Babson College (2)
Bard College (3)
Barnard College (6)
Baruch College-CUNY (2)
Bates College (5)
Boston College (22)
Boston University (35)
Bowdoin College (9)
Brandeis University (9)
Brooklyn College
Brown University (16)
Bryn Mawr College (3)
Bucknell University (2)
Butler University
California Institute of Technology (9)
California Polytechnic State University (9)
California State University, East Bay
California State University, Fullerton
California State University, Long Beach
California State University, Northridge
California State University, Sacramento
California State University, San Marcos
Carleton College (11)
Carnegie Mellon University (40)
Case Western Reserve University (30)
Central Michigan University
Chapman University
City College of New York (4)
Claremont McKenna College (10)
Clark University
Coe College
Colby College (6)
Colgate University (13)
College of Staten Island-CUNY
College of William and Mary (14)
College of Wooster
Colorado College (3)
Colorado School of Mines (2)
Columbia University (24)
Connecticut College (2)
Cornell University (44)
Creighton University
CUNY Queens College
Dartmouth College (17)
Davidson College (4)
Deep Springs College
Denison University
Dickinson College
Drexel University (13)
Duke Kunshan University (2)
Duke University (19)
Duquesne University
Durham University (25)
Eastman School of Music
Elizabethtown College
Elon University
Embry Riddle Aeronautical University
Emerson College

Emory University (42)
Florida International University
Florida State University (3)
Fordham University (10)
Franklin & Marshall College
Franklin Pierce University
Franklin W. Olin College of Engineering
Geneva College
George Mason University
George Washington University (6)
Georgetown College
Georgetown University (17)
Georgia Institute of Technology (32)
Gettysburg College
Grinnell College (5)
Grove City College
Hamilton College (11)
Harvard University (14)
Harvey Mudd College (8)
Haverford College (8)
Hofstra University
Howard University (2)
Hunter College - CUNY (3)
Huston Tillotson University
Indiana University Bloomington (5)
Iowa State University
James Madison University
Johns Hopkins University (33)
Kalamazoo College
Kenyon College (4)
Knox College
Lake Forest College
Lewis & Clark College
Loyola Marymount University
Loyola University Chicago (2)
Macalester College (6)
Manchester University (3)
Massachusetts Institute of Technology (7)
Mercer University
Michigan State University (4)
Middlebury College (13)
Minerva Schools at KGI (2)
New England Conservatory of Music
New Jersey Institute of Technology (2)
New York Institute of Technology
New York University (52)
NYU Stern School of Business
New York University-Abu Dhabi (2)
North Carolina A&T State University
North Carolina State University
Northeastern University (24)
Northwestern University (25)
Northwestern University in Qatar
Oberlin College (10)
Occidental College (5)
Oklahoma State University
Oregon State University
Pace University
Peabody Institute of the JHU
Penn State University-University Park (9)
Pepperdine University
Pitzer College (2)
Pomona College (13)

Portland State University
Pratt Institute (4)
Princeton University (17)
Purdue University-West Lafayette (16)
Reed College (7)
Rensselaer Polytechnic Institute (2)
Rhode Island School of Design
Rhodes College
Rice University (36)
Rider University
Rochester Institute of Technology (2)
Rose-Hulman Institute of Technology (7)
Rutgers University (10)
St. Louis Univ. Medical Scholars Program
San Diego State University (6)
San Francisco State University
San Jose State University (5)
San Louis Obispo
Santa Clara University (15)
Scripps College (2)
Siena College
Skidmore College (2)
Smith College (6)
Soka University of America
South California Institute of Architecture
Southern Methodist University
Spelman College
St. John's College
Stanford University (27)
Stevens Institute of Technology
SUNY Albany
SUNY Binghamton University (3)
SUNY Buffalo (2)
SUNY Stony Brook University (5)
Swarthmore College (14)
Syracuse University (5)
Temple University (3)
Texas A&M University
The Cooper Union
The New School
The Ohio State University (5)
The University of Alabama
The University of Arizona
The University of Illinois at Chicago (3)
The University of Illinois at Springfield
The University of Maryland, College Park (10)
The University of Massachusetts Lowell
The University of Memphis
The University of Tulsa
The University of Texas at Arlington
The University of Texas at Austin (7)
The University of Texas at Dallas
The University of Virginia (42)
Trinity College
Tufts University (17)
Tulane University (5)
UIUC (44)
United States Air Force Academy
United States Naval Academy
University of Alberta (2)
University of California-Berkeley (91)
University of California-Davis (53)

University of California-Irvine (80)
University of California-Los Angeles (119)
University of California - Merced (6)
University of California - Riverside (10)
University of California-San Diego (140)
University of California-Santa Barbara (125)
University of California-Santa Cruz (19)
University of Central Florida (2)
University of Chicago (44)
University of Cincinnati
University of Colorado (8)
University of Delaware
University of Denver (2)
University of Florida (8)
University of Georgia (3)
University of Hawaii - Manoa
University of Kentucky
University of Louisville
University of Massachusetts Amherst (8)
University of Miami (3)
University of Michigan-Ann Arbor (42)
University of Minnesota - Twin Cities (8)
University of Mississippi
University of Nevada (2)
UNC-Chapel Hill (48)
University of Notre Dame (8)
University of Oklahoma
University of Oregon (2)
University of Pennsylvania (35)
University of Pittsburgh (8)
University of Puget Sound (2)
University of Richmond (8)
University of Rochester (20)
University of San Francisco
University of South Alabama
University of South Carolina
University of Southern California (72)
University of Tennessee (2)
University of Washington (11)
University of Washington - Seattle (19)
University of Wisconsin-Madison (34)
University of Wyoming
Vanderbilt University (31)
Vassar College (14)
Virginia Commonwealth University
Virginia Tech
Wagner College
Wake Forest University (5)
Washington and Lee University (5)
Washington State University
Washington University in St. Louis (27)
Wayne State University (2)
Wellesley College (5)
Wentworth Institute of Technology
Wesleyan College
Wesleyan University (9)
Western Kentucky University
Westminster College
Whitman College (3)
Willamette University (2)
Williams College (7)
Worcester Polytechnic Institute (3)
Yale University (30)
Yale-NUS College (5)

Non-U.S. Universities

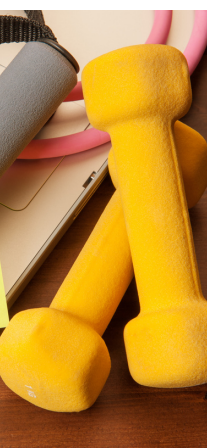
Bocconi University
Cardiff University
Eindhoven Institute of Technology (2)
Habib University
Imperial College London (42)
King's College London (55)
KU Leuven
Lancaster University
London School of Economics and Political Science (4)
Loughborough University
Maastricht University
McGill University (17)

McMaster University (3)
Montana State University
Nanyang Technological University (2)
National University of Singapore (2)
Queen's University (4)
Sciences Po (5)
The Chinese University of Hong Kong (2)
The Hong Kong University of Science and Technology (4)
The University of Auckland
The University of British Columbia (26)
The University of Edinburgh (59)
The University of Hong Kong (12)

The University of Manchester (29)
The University of Melbourne
The University of New South Wales (UNSW Sydney)
The University of Sydney (3)
Tsinghua University
The University of Sheffield
University College London (66)
University of Amsterdam (2)
University of Bath (3)
University of Bristol (11)
University of Cambridge (14)
University of Groningen

University of Guelph
University of Leeds (4)
University of Nottingham
University of Oxford (23)
University of Southampton (4)
University of St Andrews (25)
University of the Arts London
University of Toronto (90)
University of Warwick (29)
University of Waterloo (10)
Western University (3)
Waseda University
York University (2)

***Admission results should not be construed as a direct outcome of any one program. Colleges and universities use a holistic application process to evaluate all aspects of an applicant, and while experience in a particular program may distinguish a student, no single credential will determine admission results.*



Best Research-Oriented Summer Programs for Both US and International High School Students

Pioneer admissions appreciates every applicant's interests and ambitions. In 2021 limited to offering about 1100 admissions for 4500 applications. We believe that all motivated students deserve quality academic opportunities. Therefore we have assembled this list of widely respected online academic and research programs and summer programs that accept both US students and international students:

Broadly Respected Academic Programs Hosted by Colleges or Universities

1. [Leadership Institute – Brown University](#)
2. [Pre-College Program – Carnegie Mellon University](#)
3. [Pre-College Students – University of Chicago](#)
4. [Cornell SCE Pre-College Studies – Cornell University](#)
5. [July Experience – Davidson College](#)
6. [Summer Session – Duke University](#)
7. [Emory Summer College – Emory University](#)
8. [Harvard Summer School – Secondary School Program \(SSP\) – Harvard University](#)
9. [Summer at Hopkins – John Hopkins University](#)
10. [NYU Precollege – New York University](#)
11. [Pre-College – Northwestern University](#)
12. [UPenn Summer – University of Pennsylvania](#)
13. [RISD Pre-college – Rhode Island School of Design](#)
14. [Summer Session – Stanford University](#)
15. [Pre-College – University of Notre Dame](#)
16. [UCLA Summer Session – UCLA](#)
17. [Vanderbilt Summer Academy – Vanderbilt University](#)
18. [Yale Summer Session for Pre-College Students – Yale University](#)

Highly Selective Academic or Research Programs

1. [Telluride Association \(TAOS/TASS/TASP\)](#)
2. [Research Science Institute \(RSI\)](#)
3. [Pioneer Research Program – Pioneer Academics](#)
4. [The Summer Science Program \(SSP\)](#)
5. [Jerome Fisher Program in Management & Technology \(M&TSI\) – Wharton, University of Pennsylvania](#)
6. [John Hopkins Center for Talented Youth \(CTY\) Online Program – John Hopkins University](#)
7. [Northwestern Center for Talent Development – University of Northwestern](#)
8. [Yale Young Global Scholars Program \(YYGS\) – Yale University](#)

Other Reputable Academic or Research Programs

1. [North Carolina School of Science and Mathematics \(NCSSM\)](#)
2. [Program in Mathematics for Young Scientists \(PROMYS\)](#)
3. [MathLLy](#)
4. [Prove It! Math Academy](#)
5. [Summer Immersion – Columbia University](#)
6. [AwesomeMath Summer Program](#)
7. [Center for Precollegiate Education and Training Summer Programs](#)
8. [Perry Research Scholars Institute – University of Iowa](#)
9. [Summer Art Residency – University of Iowa](#)
10. [Summer Writing Residency – University of Iowa](#)
11. [Secondary Student Training Program – University of Iowa](#)
12. [Canada/USA Mathcamp – Mathematics Foundation of America](#)
13. [Expand Your Mind – Minnesota Institute for Talented Youth](#)
14. [Summer Science & Engineering Program – Smith College](#)
15. [Stanford University Mathematics Camp](#)
16. [Mathworks – Texas State University](#)
17. [Clark Scholar Program – Texas Tech University](#)
18. [Summer Institute for the Gifted](#)
19. [Wesleyan Summer Gifted Program – West Virginia Wesleyan College](#)

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research program for high school students**



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