



Dear Applicant and Parents,

Project Lead The Way (PLTW) is the nation's leading provider of K-12 STEM programs. The PLTW [Biomedical Sciences Institute \(BSI\)](#) is a rigorous four-year program that begins freshman year in high school.

- 9th grade year: Principles of Biomedical Sciences (PBS)
- 10th grade year: Human Body Systems (HBS)
- 11th grade year: Medical Interventions (MI)
- 12th grade year: Biotechnology Honors (BIOTECH)

The Biomedical Sciences Institute's challenging courses are aligned with appropriate, national learning standards that follow a proven, hands-on, real-world problem-solving approach to learning. Working with the same equipment and tools used by lab professionals, PLTW Biomedical Science students are empowered to explore and find solutions to some of today's most pressing medical challenges.

Through scaffolded activities that connect learning to life, students step into the roles of biomedical science professionals and investigate topics including human medicine, physiology, genetics, microbiology, and public health. Students work together in teams to find unique solutions, and in the process, learn in-demand, transferable skills like critical thinking and communication.

The BSI courses are intense and require a high level of dedication to classwork, collaboration with others, and independent research. The BSI courses are honors-level science electives and students will be required to complete their standard science courses (biology, chemistry) concurrently. AP Biology is also highly recommended.

MDCA BIOMEDICAL SCIENCES INSTITUTE APPLICATION FORM

Due to the obligation of remaining in this program for four years, students are required to go through a multi-step application process. Before applying, students must reflect upon their abilities, as the coursework is extremely challenging and requires self-motivation and personal dedication. Students must be willing to commit to the program and the rigor that the program requires. BSI is a four-year commitment, and students will remain enrolled in the program unless withdrawn due to academic probation. Students earning a 'D' during the semester of any course will be placed on academic probation and must earn a 'B' as a final grade to remain enrolled in the program. Fortunately, it is not common for students to be placed on academic probation.

Applications are due by **3:00 pm** on **March 31st, 2022** for current students and by **Aug 1st, 2022** for new students accepted after March 31st, 2022. Submit your completed application to Mrs. Nunez in the High School office at amanda.nunez@mdcacademy.org. Applications submitted after the published due dates will not be accepted.

Good Luck! The MDCA Biomedical Advisory Board and Shareholders look forward to reviewing your application.

CHECKLIST

| | |
|--|--|
| | Application |
| | 2 essay prompts |
| | 2 teacher recommendations - if homeschooled, obtain from a non-family member in the community |
| | GPA - 3.0 or higher in math and science, ACT ASPIRE or other standardized test score of 50th%ile or higher in math and science or some other form of standardized testing |

The following is used to determine acceptance into the program:

- 2 Essays
- Report cards grades in math and science
- Attendance
- ACT Aspire in math and science

- 2 Teacher recommendations

| I. STUDENT INFORMATION | | | | |
|-------------------------------|------------|-------------------------|---------------|-------------------|
| Last Name | First Name | M.I. | Present Grade | Birth Date / / |
| Street Address | | | | |
| City | State | Zip | Gender | |
| Parent/Guardian Full Name (1) | | | | |
| Parent Email Address (1) | | Parent Phone Number (1) | | |
| Parent/Guardian Full Name (2) | | | | |
| Parent Email Address (2) | | Parent Phone Number (2) | | |

Please respond to each of the writing prompts on a separate sheet of paper (one page per prompt). Make sure to address all parts of the questions. Responses must be typed (Times New Roman, font size 12, double-spaced). Limit your responses to a total of no more than 2 one-sided pages. You will be signing on the application form that you personally wrote your essays and that you received *no assistance* in completing them.

ESSAY PROMPTS

1. Explain why you want to be a part of the Biomedical Sciences Institute. Include your future goals, personal and career interests, what you would like to accomplish by being a part of the program, and what your goals are after high school.
2. Assess your ability to be a successful Biomedical Sciences Institute student. Discuss your strengths and weaknesses as a student; self-motivation, time management skills, study habits, work ethic, etc. Include other factors such as your attendance, classroom behavior, grades in math and science, motivation, and ability to problem solve and work collaboratively.

2. STUDENT WRITING

I acknowledge that these writing samples are *my own work* and I have received *no assistance* in completing them. The Biomedical Sciences Institute requires a large amount of individual writing on an almost daily basis. It is imperative that the selection committee sees exactly what a student is capable of doing without outside influences. Failure to complete writing prompts on your own will result in immediate disqualification in the application process.

Student's Signature _____ Date _____

Commitment Form

III. STUDENT ACKNOWLEDGMENT

I hereby submit this application to be considered for the MDCA Biomedical Sciences Institute. I understand that applications will not be returned to me. I understand that admission to the MDCA Biomedical Sciences Institute is competitive and enrollment is limited. I understand that completion of this application does not guarantee my acceptance to the program. If there are a large number of qualified applicants, an interview may be necessary. *I understand that the Biomedical Sciences Institute is a four-year program consisting of PBS, HBS, MI, and Biotech classes.*

Student's Signature _____ Date _____

Student's Printed Name _____

III. PARENT ACKNOWLEDGMENT

I hereby submit this application for my child to be considered for the Biomedical Sciences Institute. I understand that applications will not be returned to the student or parent(s). I understand that admission to the program is competitive and enrollment is limited. I acknowledge that my student has received no assistance in completing the written essays attached to this application. I understand that completion of this application does not guarantee my student acceptance to the program. If there are a large number of qualified applicants, an interview may be necessary for which I will be asked to attend with my student. ***I understand that the Biomedical Sciences Institute is a four-year program consisting of PBS, HBS, MI, and Biotech with \$150 course materials/lab fee per BSI course. Please note a Laptop computer is required for this and other courses in the program. See attached page for additional specifications.***

Parent/Guardian Signature _____ Date _____

CONFIDENTIAL TEACHER RECOMMENDATION FORM Biomedical Sciences Institute

Student Name: _____ **Date:** _____

Application for Biomedical Sciences (2 Required – 1 Must Be Current Math Teacher)

| Rate the Student in the Following Areas: Attribute | 1 | 2 | 3 | 4 |
|---|--|---|--|--|
| Initiative | Needs help and reminders to get started. | Gets started without being reminded or prompted to do so. | Can determine what needs to be done on his/her own. Asks the teacher for clarification | Think of things to do above and beyond what is expected. |
| Independence | Is dependent on others or checks with the teacher all of the time. | Works independently on the basics. | Can do everything expected independently. | Takes responsibility for learning, tracking his/her own progress and doing everything to demonstrate the best. |
| Collaboration | Needs prompting to perform his/her role in a group. | Can fill a basic role in a group, but doesn't do everything he/she could for the group. | Does well in a group and performs the role well, without prompting. | Sees what needs to be done beyond his/her role and acts as group leader. |
| Critical Thinking | Needs assistance with solving problems. | Can do basic problem solving required but struggles with the advanced work. | Solves complex problems as presented. | Goes beyond what is expected in solving problems, looking for innovative solutions. |
| Work Completion | Needs reminders to complete work. | Completes and turns in most work. | Completes and turns in all work on time. | Does more than expected and turns everything in on time. |
| Attitude | Is usually negative about the school. | Is mostly positive. | Is positive and encourages others to be positive. | A positive attitude is contagious to others. |

MDCA BIOMEDICAL SCIENCES INSTITUTE APPLICATION FORM

Teacher signature _____ Date _____

CONFIDENTIAL TEACHER RECOMMENDATION FORM Biomedical Sciences Institute

Student Name: _____ Date: _____

Application for Biomedical Sciences (2 Required – 1 Must Be Current Math Teacher)

| Rate the Student in the Following Areas: <i>Attribute</i> | 1 | 2 | 3 | 4 |
|---|--|---|--|--|
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| Independence | Is dependent on others or checks with the teacher all of the time. | Works independently on the basics. | Can do everything expected independently. | Takes responsibility for learning, tracking his/her own progress and doing everything to demonstrate the best. |
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Teacher signature _____ Date _____

Laptop Computer Specifications

Biomedical Science Institute utilizes powerful, industry-based software. The website below will ensure your laptop computer hardware meets or exceeds the specifications. Our I.T. department can offer consultation with laptop purchases.

<https://www.pltw.org/pltw-software>