

EHI Mentorship Program Collaboration with the Boys & Girls Club Keystone Program:

Keystone Program Director: Ashley Miehm

Contact information: [amiehm@bcgwestfield.org](mailto:amiehm@bcgwestfield.org), (774)-239-5298

EHI Director of Mentorship: Paola Sanchez, [sanchepf@bc.edu](mailto:sanchepf@bc.edu)

EHI Co-Director of Mentorship: Gabriel Santos [santosfe@bc.edu](mailto:santosfe@bc.edu)

#### **Mission:**

- The mentorship program's mission is to encourage and motivate high school students from under-resourced, financially-disadvantaged, and/or other underrepresented backgrounds into considering a future in STEM. By forming strong connections with such students, mentors will provide them with further insight into what it means to pursue a career in STEM from coursework to extracurricular activities to day-to-day life responsibilities. The mentors will serve almost as big brothers and sisters to provide guidance to such students, often who will be first-generation college students without much guidance when it comes to the college application process and college as a whole. Overall, the program's goal is to ignite and foster an interest in STEM while also instilling the values of men and women for others in high school students who can then carry these lasting impressions with them into their college careers and onwards.

#### **Mentors:**

- The goal of the program is to be able to match mentors and mentees with similar career goals, interests, and/or backgrounds.
- The program will initially commence with 10 mentor-mentee pairs from the following grades: Sophomores, Juniors and Seniors.
- High school and college freshman are excluded as college freshmen are themselves still in a transitional stage in which adjusting to their new environment will prevent them from:
  - 1. Joining on as a mentor as most college freshmen are looking to join mentoring programs as mentees to learn how to navigate the college life.
  - 2. Provide relevant advice to high school students as they are still learning the proper way to approach topics such as how to study properly, what classes to take and how to organize your schedule, how to form lasting relationships with peers and professors, etc.

- Likewise, high school freshmen are also in a transition stage in which they have not yet taken enough courses to really consider their future interests and prospects. However, if there was a scenario where a high school freshman would benefit tremendously from this program, we would reconsider this policy on a case-by-case basis.
- The targeted audience we are trying to reach and impact as mentees are students from the following backgrounds: AHANA+, lower income status, and/or first-generation college students. Because of this, it would be best to reach out to the current Gateway program for students who would be interested in this mentorship opportunity.
  - The Gateway program is itself a 2-year program designed for first-generation and low income students pursuing STEM degrees (mainly Biology, Biochemistry, and Chemistry).
  - The Gateway program targets students who are more likely to feel discouraged and defeated when going into STEM and helps them by providing them with additional office hours, discussions, smaller class sizes in some cases, and helpful advisors.
  - Gateway students are often asked to speak to the younger class where gateway freshman students are able to ask any questions they may have with upperclassmen oftentimes relaying tips to the younger class.
- Mentors from AHANA+ and/or Montserrat backgrounds will also make great candidates to be paired with the mentees. However, being AHANA+ and/or Montserrat aren't necessary to be a mentor or a member of this organization at large

#### **Mentees:**

- Mentees will consist of high school students who are members of the Boys and Girls Club of Westfield, MA Keystone Program, with preference given to students who come from the aforementioned backgrounds. The purpose of the program will be to provide them with real-world knowledge and advice through a mentor they can relate to, whether it be through similar passions and interests and/or similar backgrounds.
- 10 students from each grade in the sophomore- senior year range of high school with interests in STEM.

#### **Application Process:**

- The application process will require prospective mentors to fill out a Google forms application inquiring about the prospective mentors' interest with mentoring. Then applicants will move on to a second round in which they will be interviewed. After interviews, 10 students will be chosen to serve as mentors for the 2021 Spring Semester.

- The interview process is planned to begin on Jan. 4, 2021.
- Mentees will be students in the Boys and Girls Club Keystone program. The mentees will be sent a Google Forms survey that will then be used to gain information about the personal backgrounds of the mentees. This will allow us to adequately partner up mentors with mentees. This form/survey will also allow us to gain a better perspective of what topics we should focus our attention towards.

### **Structure of Meetings:**

- Biweekly Meetings will take place on Wednesday, 5:30 PM-6:30 PM on the online conference meeting platform, Zoom.
  - First Meeting to take place on Feb. 3, 2021.
- Given the busy schedule of college students, the program is not meant to be overly demanding. Two meetings will be scheduled for most months.
  - While not demanding too much of a time commitment, two meetings a month will allow for more time to develop trust and confidence between the mentors and mentees.
- Modules in which Professors and Faculty will volunteer to talk, will be held once this Spring 2021 semester.
  - Date, topic, and Professor TBD.
- The mentor/mentee meetings will take place in Zoom Room meetings so that each mentor/mentee can interact in a 1:1 setting. This is so because even within smaller group settings, there tends to be one or two students who do not participate as often as others and are too shy or scared to ask the questions they truly want to. Having more intimate interactions between the mentors and mentees will foster stronger connections that will hopefully transcend the high school and college careers of the parties involved.
- In total there will be 6 meetings for the Spring 2021 semester.
  - 2 meetings in the months of February, March, and April.
- The precise schedule of modules and meetings will be arranged by the start of the semester and provided to both mentors and mentees.
- If a mentor is unable to attend a meeting, it is mandatory to let both the Directors of the Mentorship Program and the respective mentee know that they will be unable to make it. Then, the mentee can be partnered up with another mentor/mentee group and join in on the conversation planned for that week. This will also work well because then the mentee can get to hear the perspective of another mentor whose experiences are different from the one they will get to know through their mentor.

### **Modules:**

- The modules will be meetings used to highlight a BC faculty member or professor who will be invited to speak about their experience in STEM. The guest speakers will be encouraged to speak about their work in STEM with particular emphasis on the impact it has improved the lives of others, augmenting one of our core ideals to be men and women for others.
- During their time, the guest speakers will be able to talk about topics ranging from their research, their careers, the classes they teach (if professors), advice they have for students in terms of deciding what to study, what professions to pursue, and other STEM related questions.
- However, other people in the field of STEM with applicable experiences may be invited to join
  - This idea is taken from a Gateway seminar directed at students who are not necessarily interested in pursuing research or medical school. Hearing from external professionals whose work is not directly tied to academia will only serve to further educate students about other possible career and life paths in the vast realm of STEM.
  - In order to reach out to professionals who would be interested in talking to our students, our board of advisors can help us by providing us with the contact information of professionals they know and trust to speak about their experiences.

**Topics for Each Session:** (First Year) Sophomores & Juniors

- First Meeting ( Feb. 4): Introductions/Getting to know one another!
  - During this first meeting, the conversation will focus on introducing all of the mentors and mentees. Ice breakers will be introduced so that the group becomes familiar with one another even if the meetings will be 1 to 1. This will be a good exercise because even if the students come from the same schools, the participants are all in different age groups and grades and having another friendly face on campus is only beneficial. The remainder of the meeting will be spent with the mentor and mentee involved in a conversation so that they can better get to know the person with whom they will be spending the rest of the year(s) with.
- Second Meeting (Feb. 17): High School: Getting to know the interests of your mentees.
  - In order to be able to steer your mentee in the right direction you will need to understand their interests. This talk does not only have to involve academic interests, but should definitely have a focus on it. Furthermore, when talking about interests you can gauge to see if your mentee is involved in other clubs and programs in their school. This can help you either give them advice on how to juggle their

responsibilities or encourage them to become more involved in other clubs so as to grow their passions and interests.

- Highlighting a Specific Topic in STEM\*
  - Aside from the modules, the EHI board will come together to choose a certain idea or concept within STEM that the program can spend a meeting discussing. For example, an idea to talk about could be 3D Printing and other recent innovations.
    - This would be similar to the talks presented by Professor Wolfman and Professor Deak in which they spend some time highlighting an innovation in medicine. For example, Professor Wolfman once spent some of this time talking about anesthesia and what the breakthrough meant in the medical field, he also mentioned that the first surgery with anesthesia was conducted in Massachusetts General Hospital (possible field trip?)
  - These meetings can be set up so that the mentors will be given enough time to research the topic ahead of time and give a presentation on it to the rest of the group.
  - This can take up half a meeting and can be used as a space for EHI members to present their ongoing research.
- Third Meeting (March 3): Getting your questions answered about AP classes, dual enrollment, GPA, PSAT
  - Because the mentees will most likely be Sophomores and Juniors this first year, and because we want to continue to build upon the relationship between mentors and mentees while not completely overwhelming the mentees with college-related talk. Therefore, this meeting should be focused on topics related to high school that are important when applying to college. Lots of students have questions on AP classes, the Collegeboard, and dual enrollment. Mentors should provide their honest thoughts on the experiences they have had and provide additional information on high school classes and their impact on the college experience. Furthermore, lots of high school students have questions about GPA and how to approach studying for the PSAT and SAT as well as what such scores mean. Again, mentors should provide their honest thoughts and experiences and provide insightful.
- Fourth Meeting (March 17): College Prep: SAT's, CommonAPP, Study Habits, Fee Waivers
  - Considering that for the first year the students will most likely be sophomores and juniors, this penultimate meeting should be focused on topics that are more closely related to college. Mentors should talk about their experience with the SAT's, how they studied for them,

what they wish they would have done more in retrospect, and explain what their scores mean. Furthermore, because the students are from under-resourced backgrounds, the mentors should give useful advice in terms of taking advantage of fee waivers. Also, the majority of this meeting should be spent on discussing the CommonAPP. Mentors should share the process they went through with applying to different colleges: how many colleges did they apply to, what was it like writing supplemental essays, who did they ask for recommendations, and the struggles of trying to fill the Collegeboard CSS and other financial aid forms before even knowing what school you have been accepted to.

- Fifth Meeting (April 7) A Day in the Life of a College Student: Answering all College Related questions
  - Up to this point, the student will have some idea as to their mentor's life in college, but this meeting is meant to be a sort of transitioning stage in which the realities of college can be openly expressed. The mentors should open up about their experiences taking STEM classes at each level and how difficult the realities of adjusting to a college environment are. Mentors should offer advice in terms of how to balance academic and social life, joining clubs, developing relationships with professors, etc.
- Last Meeting of the Semester. (April 21 or 28) Bonding. Encourage research.
  - Because this will be the last meeting of the semester, the focus of this meeting should be on bonding and reflection. An outing would be ideal if funding were to be possible. Furthermore, the mentors should encourage their mentees to use the time of their winter break to find a topic in STEM to research. The research should not be extensive in any way, finding an article on a topic that interests them will suffice as long as they understand the topic well enough to explain it to another peer. This is meant to subtly enforce the students to begin to explore topics in STEM for which they may begin to develop a real interest in. The older grades should be encouraged to choose more advanced articles such as articles from medical journals, especially if they are taking classes such as AP Chem and/or AP Bio. This will most likely be the first time the student will be doing their own kind of small-scale STEM research/readings, so the goal is that their readings will leave a lasting impression that they can think back upon once they are in college and learning more in depth about the topic they choose to briefly read about. Reflections should touch upon suggestions from the mentees on what kind of topics they would like to talk about in the upcoming sessions.

