



# Brown Science Prep

*Enhancing science education out of the classroom and  
preparing Rhode Island public high school students for college.*

Thank you for your interest in Brown Science Prep!

We have compiled this informational packet to demonstrate what makes Brown Science Prep (BSP) unique and to help you determine whether you would like to become a part of our family. This packet includes important information about our mission, our goals, and our structure.

We are looking for Brown students who are equally passionate about science (a science concentration is NOT required) and community outreach. Accordingly, we envision two distinct yet interconnected roles. As teachers, we seek to impart knowledge and problem-solving skills while promoting independent and creative thinking in our students. As mentors, we seek to foster genuine relationships with our students, enabling them to feel comfortable enough to ask questions, participate actively, and just have a really fun time each Saturday. We promise you that you will learn as much from our students as they will learn from you.

We hope that you will find the following information useful in deciding whether to apply as a mentor for the coming year.

Best of luck,  
Ryan Bahar, Shirley Lin, and Sumit Sohani  
Program Coordinators 2017-18

## Overview

- Our Mission
- The Program
- Mentor Responsibilities
- Benefits of Being a BSP Mentor



## Our Mission

We strive to show our students the excitement of science through lessons geared toward real world phenomena, applicable learning, and hands on demonstration and experimentation. Our structure encourages Brown student mentoring of Rhode Island high school students while building a sense of community. Additionally, we aim to encourage our students to begin thinking about college and the college process. The following goals are in place to address this mission:

- I. To foster a small, interactive learning environment, where mentees can actively participate and gain self-confidence in our classroom.
- II. To cultivate an appreciation for the importance of science in our society and encourage scientific curiosity.
- III. To establish strong one-on-one mentoring relationships between Brown students and Rhode Island public high school students.
- IV. To introduce students to the idea of a college education and to serve as a source of advice and support.
- V. To engage and collaborate with Rhode Island high school science teachers.
- VI. To supply mentors with the support necessary for their development as teachers and mentors.
- VII. To build a connection with the Brown University science education community and incorporate it into our teaching.

## The Program

### Curriculum

Our curriculum aims to:

- I. Provide students with the necessary thinking skills to succeed in various high school courses, particularly in the sciences.
- II. Present the relevance and excitement of learning science.

Lessons are taught in teaching groups of two to three Brown students. Each week, a small group of mentors will be responsible for writing the lesson for the week. Mentors will write approximately one lesson per semester. Training, feedback, and lesson planning structure will be provided by other mentors and the program. Our topics emphasize real world applications and, most importantly, are **interactive**. Examples of past lessons include: neurons, computer science, shark dissection, paleontology, and black holes.

### Activities and Field Trips

Over the course of the semester, we plan several field trips and activities on campus with a college, community building, or science focus. Past activities have included attending

Meet the Cadaver Day at the Alpert Medical School, visiting the Mystic Aquarium, touring Brown University research labs, and participating in Brown's virtual reality lab.

### **Mentor-Mentee Relationship Building**

Every Brown student serves as the primary mentor for a small group of high school students. Every Saturday, "breakfast time" is scheduled to allow mentors to bond with their students, share advice, talk about college, and enjoy delicious bagels. Many past mentors have found this time to be among their most important experiences as a Brown Science Prep mentor.

### **Typical Saturday Schedule**

Students arrive at Brown campus

10:30-11:00 Breakfast

11:00-1:00 Lesson/Experiment/Activity

### **Mentor Responsibilities**

- I. Be available from 10:30am until 1pm on most Saturdays throughout the academic year.
- II. Attend a 30 minute weekly planning meeting. Share feedback with other mentors and engage in discussions about the structure of the program. Mentors will also be required to attend a few science education training sessions, which will be scheduled in advance.
- III. Write one lesson plan per semester with other mentors. This lesson plan can be based on any scientific topic you find interesting, but we emphasize that it should be based around several interactive activities.
- IV. Be prepared to teach by familiarizing yourself with the lesson plan prior to Saturday lessons. Lessons are distributed a week before the lesson is taught, giving you ample preparation time. Most mentors find 30 minutes - 1 hour of prep to be sufficient.
- V. Be enthusiastic and engaging! Our students feed off of your energy!

### **Benefits of Being a BSP Mentor**

- I. The opportunity to interact with and directly affect the lives of Rhode Island high school students.
- II. A chance to develop and enrich your teaching skills.
- III. A chance to learn about educational and socioeconomic issues facing Rhode Island public school students.
- IV. An opportunity to share your knowledge and various skills with high school students.
- V. Free breakfast on Saturdays :)