Broader Impacts Committee at Brown 2014

Mission: The Broader Impacts committee has been formed in an effort to maintain a sustainable, organized and well-managed set of broader impact programs at Brown in support of federally funded grants. Members of the committee are available to discuss opportunities for Brown faculty and graduate students to meet broader impact requirements on federally funded grant and fellowship applications - by developing and participating in successful STEM outreach initiatives and by leveraging existing programs and relationships with the community and with local schools.

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Audience (Who Benefits) | Sample Broader Impacts Programs
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Community | **Science-Toons**: Combines art, animation, high-quality multimedia and storytelling to engage a broader audience in science as part of our informal science education program.  
**Ladd Observatory**: weekly public nights, including lectures and observing, as well as programs that engage area students and other members of the community in astronomy, physics, and planetary science research activities.

K12 Teachers | **Research Experiences for Teachers**: Participants work in labs of Brown faculty and engage in cutting edge research projects in the sciences. There are also weekly group meetings, an end of the summer mini-conference, and weekly lab tours. Teachers work with Brown faculty/students to bring this research knowledge back into their K-12 classroom.  
**Research-based professional development programs**: Professional Development seminars are held on the Brown campus in the evenings and provide an opportunity for faculty to share their research and discuss possible inclusion in K-12 classrooms.  
**STEM Outreach Resource Database**: Research-based lesson plans and hands-on activities in line with Rhode Island state standards are developed, uploaded and shared with K-12 teachers, and disseminated to a broader audience. The database provides faculty with access to inventory of STEM outreach programs across Brown.
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<th>Audience (Who Benefits)</th>
<th>Sample Broader Impacts Programs (cont.)</th>
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| Pre-College             | - **Office of Continuing Education Partnership Program**  
|                         | - **Science Conferences at K-12 Schools**: Scientific conferences begin with a keynote address in the school auditorium, after which K-12 students rotate from room to room visiting scientific talks of their choosing.  
|                         | - **Summer Research for High Schoolers**: Participants work in labs of Brown faculty and engage in cutting edge research projects in the sciences. There are also weekly group meetings, an end of the summer mini-conference, and weekly lab tours.  
|                         | - **Brown Science Prep**: Show public high school students the excitement of science through lessons geared toward real world phenomena, hands-on demonstrations, experimentation and end of semester high school students presentations.  
|                         | - **Learning Exchange for Middle Schoolers**: This is an after-school initiative for middle school students that creates excitement around learning through the use of technology. Technology is used as a tool to engage students in math, music, computer science and animations.  
|                         | - **Athena Science Challenge**: This program engages high school girls with an interest in science by giving them an opportunity to demonstrate and enrich their scientific knowledge, skills and creativity. Through a team-based quiz-bowl style tournament, the Athena Science Challenge seeks to nurture collaborative teamwork and a spirit of vibrant competition in the service of learning and discovery. |
| Undergraduate Students  | - **Phage Hunters** A research-intensive course for first-year students.  
|                         | - **Leadership Alliance Summer Research Early Identification Program (SR-EIP)**: The SR-EIP is a national internship program that offers competitive research experiences in all academic disciplines for a diverse group of undergraduates interested in PhD or MD-PhD programs at over 20 Leadership Alliance institutions. All SR-EIP students make oral or poster presentations at the Leadership Alliance National Symposium and receive professional development mentoring. Brown undergraduates have the opportunity to conduct research external to Brown and faculty have the opportunity to mentor diverse students who are potential recruits into graduate programs. |
| Graduate Students       | - **Graduate STEM Fellows**: Graduate Fellows utilize their scientific background and training as they design and implement hands-on, research-based science activities in line with Rhode Island GSEs.  
|                         | - **Teaching Certificate Programs**: Contribute to the development of future faculty members through these Sheridan Center programs. |
| Faculty                 | - **Science Fridays**: Friday lunchtime program (co-sponsored with the Science Center) fostering a community of practice for sharing ideas, challenges and experiences in teaching and learning in the sciences. The group focuses on integrating scholarly teaching and mentoring in the sciences.  
|                         | - **Seminars and Workshops**: The Sheridan Center offers a variety of seminars and workshops each semester. Topics range from themed series to individual sessions. Examples include: NSF Career Award Workshop; and Integrating Your Teaching and Research. Faculty also have the opportunity to develop and teach a professional development workshop for graduate students and faculty as a component of Broader Impacts for their grants. |