



YOUNG SCHOLARS PROGRAM



Northeastern



Program Goals and Objectives

1. Introduce students to the research environment – Students will be able to identify appropriate materials, equipment, safety measures, and necessary tasks that need to be completed within the lab. Students will conduct experiments, analyze and interpret results, and organize presentations based upon their research. Additionally, students will understand the ethics of conducting scientific research and will be able to recognize issues related to intellectual property.

2. Prepare students for college – Students will be able to identify schools that meet their interests and will understand the process of applying to a University or College. By practicing writing a college essay and hearing from admissions counselors, students will be prepared for the application process that lies ahead. Students will also have a better understanding of the diversity of a college campus after they experience the mixed socioeconomic, racial, and cultural backgrounds of fellow participants, as well as the range of students they encounter in the lab setting—from undergraduates to post-doctoral researchers.

Program Goals and Objectives (cont.)

3. Teach students to work collaboratively – Students will be able to demonstrate their ability to work as a member of the research team. As a research team, they will create a PowerPoint and Research Poster which will be presented to program participants, research mentors, families and friends, funders, and the Northeastern community at large.

4. Increased exposure to STEM pathways – Students will be exposed to a variety of STEM fields through weekly research seminars, special presentations by lead faculty and staff from STEM departments, and field excursion to STEM industries. Through these presentations and excursions, students will be introduced to a variety of STEM professionals and will gain a better understanding of the numerous opportunities available with a STEM background.

5. Maintain a Network of Support – By means of various available platforms, past participants will remain connected with the greater Young Scholars community—past students, coordinators, and Northeastern faculty and staff. The YSP program has established a presence on social and professional networking sites (*Facebook* and *LinkedIn*, respectively) in order to provide students the ability to remain connected as friends and as potential colleagues.

A Look at the Numbers

- 275 student participants to date
- Since the program was resurrected in 2004, there have been 112 students
- **94 percent have** chosen to major in a STEM-related field including Biology, Chemistry, Computer Science, Engineering, Nursing, Physics, and Pre-Med at prestigious universities across the country.¹

¹ Data is taken from students who have participated in the program since 2004. Psychology and Economics majors (n=4) are included as STEM majors as defined by NSF.

Alumni Feedback

- *“[The Young Scholars Program] made me more interested in doing research science, which led me to apply to MIT, which led to summer internships at companies, which encouraged me to get a PhD, which brought me to where I am now, leading research programs at a small innovative company.”*
 - 1989 Participant (BS in Materials Science, MIT; PhD, U. of Minnesota)
- *“There were no classes in my high school that provided any sort of information or training on what being an engineer entailed. The Young Scholars Program let me get a taste of what it was to be an engineer. Because of that, I decided to major in Chemical Engineering...”*
 - 1992 Participant (BS in Chemical Engineering, Cornell)
- *“I must say, if it wasn't for my lab work at YSP, I wouldn't have gotten my job at Harvard two years ago, and I wouldn't have gotten my job in the lab here at RPI. And I wouldn't know if I even wanted to apply to grad school, I'd just be considering it now instead of having my mind made up for years.”*
 - 2004 Participant (BS in Biology, RPI; PhD Candidate, RPI)

STEM: Final Presentations

- Two pairs of Boston area high school students present their summer research projects for Northeastern's Young Scholars Program
 - <http://www.northeastern.edu/news/multimedia/video.html?contentID=DVOhNGgA9UGmbakW31Wm3A>
- STEM Showcase



Seniors Robert Powers (left, Belmont High School) and Lucy Salles (right, Revere High School) display their poster



Seniors Vanessa Zamy (left, Boston Latin Academy) and Dora Pepo (right, Quincy High School) display their poster

*Photos by
Craig Bailey*