

Northeastern University Young Scholars Program (NUYSP)

The Young Scholars Program offers future scientists and engineers a unique opportunity for hands-on experience while still in high school. The program is open to Boston area applicants who have completed either their sophomore or junior year in high school. Program Components include:

- Laboratory research experiences
- Career exploration
- Education and career counseling
- Field trips
- Experience college life

Recent research projects

- Macromolecular Innovations in Nanomaterial Utilizing Systems
- Fundamentals of Combustion
- Magnetic and Multiferroic Materials and Devices Micro-EIT: Combining EIT and OCT Imaging to Image Alveoli Cognitive Systems Lab:
- Brain-Computer Interface Phosphorus Removal and Recovery from Wastewater: Closing the Loop While Preserving Natural Water Ecosystems
- Iron Anode Activated Persulfate for the Oxidation of TCE in Groundwater
- Nitrogen Fixation in Cyanobacteria Human-Computer Interactive Social Media Understanding
- Delay Effects Investigation in Human Interaction: A Game Design Approach
- Chitosan-based Cisplatin Delivery Nanosystem to Overcome a Multidrug Resistance in Lung Cancer
- Detecting Bacterial Communication in Simulated Bodily Fluids



Impact on Participants

- 208 participants since 2004
- 91% of students report that the program increased their awareness of STEM career pathways
- 89% will choose and/or have chosen a STEM major in college.
- 77% of those that will, cite participation in NUYSP as a contributing factor in their decision.

– YSP gave me an opportunity early in my career (gosh, I was only a junior in HS) to dive into research in a lab. YSP definitely helped me solidify my choice in engineering, specifically chemical and biological. YSP was a foundation for my college years and career. I will be graduating in May '14 with a BS in Chemical Engineering and I am moving on to work as a Process Engineer.

- High school is so theoretical, and thus not always conducive for great learning. The research we did here was practical application of our studies, of mentoring from those in the lab, and required independent study to create a successful result to present - all in 6 weeks! It was a huge prep for college and career, and really helped with a mature perspective.

Building and sustaining long-term relationships with program participants...

- Efforts are made to maintain contact with program alumni both directly and through supporting social media sites. There are over 150 active members of the NUYSP Facebook page that interact and support each other in addition to maintaining contact with university faculty and staff.
- Program alumni attend callback sessions in addition to assisting in the identification of future program participants.

Deep commitment from faculty across the campus

- 33 faculty from three colleges have consistently supported the YSP program since its inception
- Additional faculty seeking to support the initiative through BI efforts