

Outreach Strategies to High School Students

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Institutional Profile

- Liberal Arts University
- 95 Full-time teaching faculty
- About 900 full-time students,
 - 89% received financial aid (merit, loan, or need-based)
 - 49% received federal need-based Pell grants
 - 30% first-generation college students
- Major Programs (School of Humanities, Sciences, and Business):
- Major Programs (School of Arts):
- Major Programs (School of Education):



Bachelor's Degree Requirements

- A minimum of 120 credit hours
- A cumulative grade point ratio of at least 2.0
- Major minimum GPA determined by the programs
- GEP requirement: 55-74
- Capstone projects for all students
- Discipline-specific: Internship, research, portfolio completion, degree recital, formal directing.



Expectations from Faculty

- Teaching
 - 24 credit hours per academic year
 - Faculty: student ratio is 11:1
 - No teaching or lab assistants are allowed
- Scholarly activity (with students encouraged)
 - Attendance to professional meetings, publications, performances, art exhibits, etc.
- Advising
 - Major advising, freshmen advising, capstone project advising, research/internship advising, first-generation college student mentoring, etc.
- Service
 - 2 standing committee memberships, attendance to admissions events, student engagement, and community outreach.



Faculty Perspective on Outreach

- Over 90% participate in some form of our community outreach
- Motivated to become an active member of our community
- Sees it as the opportunity to share their discipline with non-academic community
- Sees it as an opportunity to share the benefits of college/liberal arts education with youth
- Motivated to establish camaraderie with each other as well as leaders of the K-12 education community
- Interested in creating a database of local school contacts for future use (events, student recruitment, etc.)
- Sees it an opportunity to demystify college education to first-generation college students
- Opportunity to share their discipline with youth



STARS OF CONVERSE

- Science, Technology, Arts, and Research Scholars (STARS)
 - Humanities, arts, and STEM outreach
- Aims to increase interest in academic excellence by providing high school students with authentic research experiences.
- Encourage to increase participation in scholarly programs such as Junior Academy of Science, Junior Humanities and Sciences, and Research Assistantships for High School Students (RAHSS).
- Trains students in scholarly writing, research, and presentation skills.
- Provides mentor training and ongoing support.
- Exposes students to the demands of college life.
- Exposes students to intentional mentoring



STARS—Determined

Love Science, Wanna be a Scientist:

- Competitive research initiative for high school scholars.
- Both extramurally and internally funded.
- Provides competitive on-campus research opportunities for talented high school students.
- Students are paired with Converse faculty for long-term, in-depth science and technology projects.
 - 8-week intensive summer research experience
 - Year-long academic program hosted after school
 - Open to talented rising high school juniors and seniors
 - URM students are given special consideration.



Selected Research Projects

- Belle W. Baruch, Wartime Coastal Observer
- Sustainable Housing
- Glory of Leaves
- Creating new visualization Tools for Understanding Organic Chemistry through Computer Animations
- Exploring Crohn's disease and pancreatic cancer
- Explicit attitudes and implicit associations regarding stereotypes of same-sex couples
- A Comparison of Forgetting Curves in Humans and Rats
- Is the Arabidopsis ASA3 Gene Related to Abscission?
- Using Emotions in the Implicit Association Test to Investigate Racial Stereotypes
- Physiology of Self-Control: Does Blood Glucose Level have an Effect on Self-Control?
- Examining the Antibacterial Properties of Oregano Oil Extract, Grapefruit Seed Oil Extract, and Garlic Oil Extract on Microorganisms Significant to Women's Health

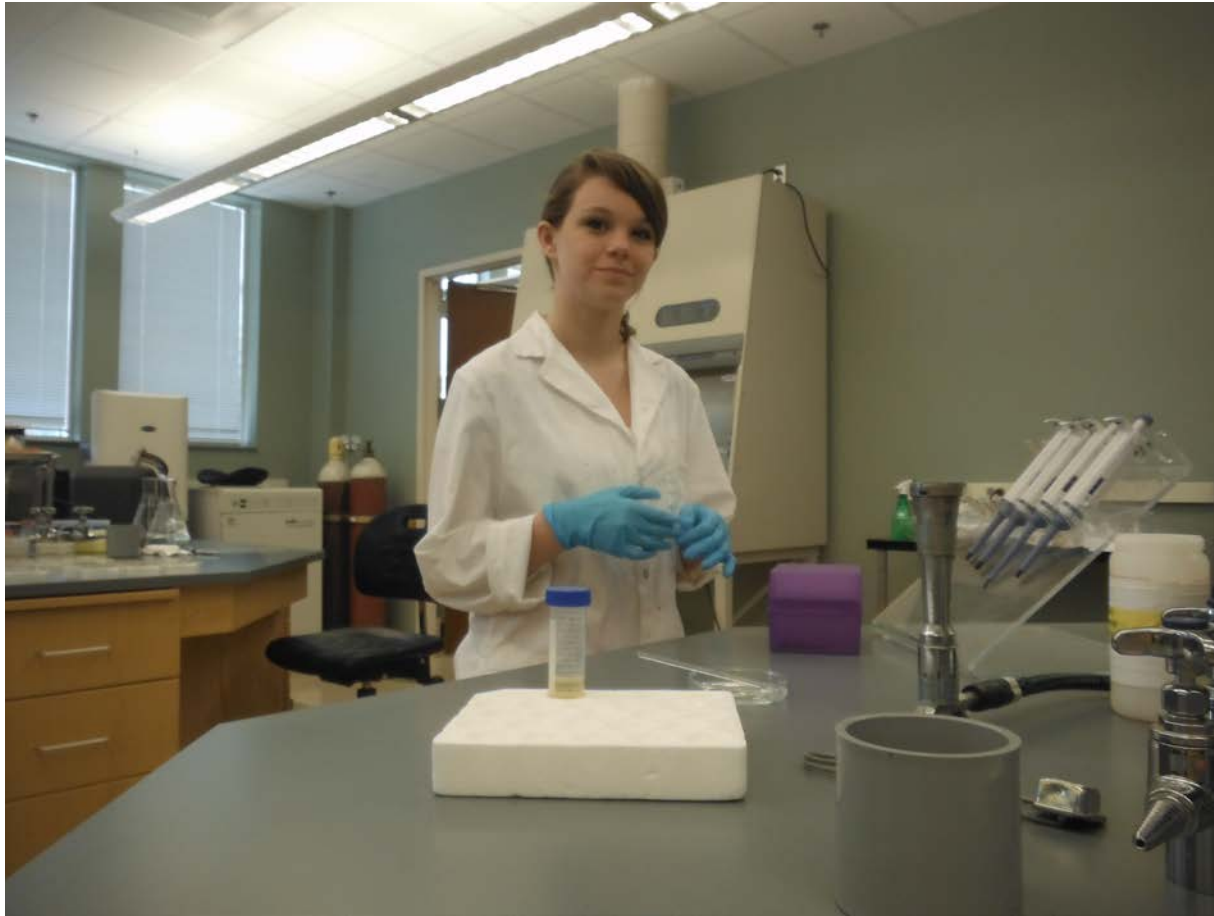


Selected Student Outcomes

- Rochester Institute of Technology National Science Fair for Deaf and Hard of Hearing Students, Second Place among Team projects (multiple years)
- Rochester Institute of Technology National Science Fair for Deaf and Hard of Hearing Students, Best Poster Award
- Rochester Institute of Technology National Science Fair for Deaf and Hard of Hearing Students, Most Enthusiastic Young Researcher Award
- Piedmont III Region Science Fair, Overall Winner (multiple years)
- Piedmont III Region Science Fair, First Place in Behavioral Science (multiple years)
- Piedmont III Region Science Fair, APA Special Award (multiple years)
- South Carolina Upstate Research Symposium, Best Poster Award (multiple years)
- NOAA Special Award
- Junior Humanities and Sciences Semi Finalist in Behavioral Science
- South Carolina Upstate Research Symposium, Best Poster Award
- South Carolina Upstate Research Symposium, Best Paper Award



WE WILL  TOGETHER



STARS—Unsure

Love Science but Not Sure:

- Designed for those students who are interested in a STEM discipline but not sure what.
- Six-week interdisciplinary paid summer research.
- Team research (6 students)
- Lab rotations in different disciplines.
- Mentoring by faculty and college students.
- Extramurally and internally funded.



WE WILL  TOGETHER



STARS—Determined and Unsure

Program Elements:

- Weekly professional development meetings
- Journal Club
- Oral research presentations
- Science Symposium
- Mentoring by faculty and college students.



STARS—Not for me

What is STEM???

- Designed for an entire class.
- Partner with high school teachers
- Monthly visit to Converse labs for curriculum matched hands-on experiences.
- Aims to enhance:
 - Mastery of science subject matter
 - Developing scientific reasoning abilities & practical skills
 - Cultivate interest in science and science learning
 - Improve teamwork abilities.



STARS—Not for me

Program Elements:

- Monthly 3-hour long lab session
- Undergrads participate as teaching assistants
- Panels with college students
- Teacher receives support for sustainability
- Meetings with a science professional. Aims to
 - expose students to STEM professions
 - give insights on “how to’s” of the discipline
 - underscore the importance of math and science
 - encourage students to set high academic goals.



WE WILL  TOGETHER



Challenges

- Faculty involvement
- Teacher involvement
- Student Recruitment
- Funding
 - Transport



Questions

