Career STREAM

Career STEM Trajectories: Research Engagement for Apprentices & Mentors Overview:
Career STREAM engages high school students, from populations underserved and under-represented in STEM, in paid regional summer apprenticeship experiences under the guidance of college student STEM and culture/career mentors. Key elements of this program include identifying and building on students’ everyday STEM assets, providing explicit and accurate career guidance, and engaging students in a mentored project.

Student Apprentices
• High school students, from targeted demographic groups, identified / nominated by community partners
• 6-8 week commitment / 40 hrs per week
• Work on STEM project with mentor guidance
• Learn how to apply STEM and develop workplace skills
• Develop self-efficacy and professional identity
• Receive 2 stipends – one at mid-way mark and one at project’s end

The ideal apprentice recruit is a student who shows creative thinking, but who may lack the support system, skills, confidence, or opportunity to aspire to a degree in a STEM field.

Student apprentice nominees must belong to at least one of the following categories:
• Race and ethnic minorities historically underrepresented in STEM
• Military-connected
• Low-income family
• Students with disabilities
• Female learners
• First-generation college students
• Students with English as a second language
• Students in rural or other Federal targeted outreach schools, such as Title 1 or high-need school districts

Regional sites located at college / university campuses / satellite campuses, or at STEM partner facilities
• STEM Project at each regional site aligned with DoD modernization priorities
• 1 STEM mentor for up to 3 apprentices
• 1 Culture & Career Mentor-Coordinator for all apprentices at each regional site
Looking for STEM projects in these broad areas:

- Biotechnology
- Artificial Intelligence/Machine Learning
- Autonomy
- Cyber
- Directed Energy
- Space
- Quantum Science
- Fully Networked Command, Control, and Communications

### STEM Mentors

- College student majoring in STEM field
- 12-week commitment / 40 hrs per week
- STEM project planning & oversight for up to 3 student apprentices
- Day-to-day supervision of apprentices
- Provide skill building activities and help apprentices grasp STEM content
- Ensure project milestones are met
- Receive 2 stipends – one at mid-way mark and one at project’s end

### Culture & Career Mentors

- Upper division undergraduate or graduate students who have overcome some of the same challenges the student apprentices now face
- 12-week commitment / 20 hrs per week
- Support all student apprentices at a regional site
- Provide critical guidance about navigating STEM pathways and developing self-efficacy and professional identity
- May interact with apprentices remotely using technology such as Zoom meetings
- Receive 2 stipends – one at mid-way mark and one at project’s end

### Outcomes:

As a result of participating in Career STREAM a diverse group of New Mexican high school students will have an opportunity to see how they fit into the STEM landscape and understand how their cultural and everyday problem-solving experiences can serve as a foundation for their futures in STEM. Mentors also benefit as they will develop skills while assisting their apprentices to persist and flourish while strengthening their own commitment to and awareness of STEM opportunities.

### Evaluation:

Formative evaluation will provide on-going critique and feedback on project activities, strategies, and objectives. Summative evaluation will report on the annual and final impacts. Evaluation questions will be answered using participation data and measures of the quality and impact of participation.