

## **Career Exploration Program (CEP)**

*Administered via Cooperative Agreement between JSC and USRA*

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### **Program Description**

The Career Exploration Program (CEP) cooperative agreement provides opportunities for high school and college students to gain hands on administrative and technical work experience at NASA Johnson Space Center. The CEP educates students about careers in science, technology, engineering, and mathematics and equips participants with the background, skills and knowledge required to embark on a career with NASA.

### **High School**

Students work at JSC part-time during their senior year in high school and the summer following graduation. The students provide much needed support to JSC. They learn valuable technical and office skills while being exposed to positive role models and work ethics. Students work for a one-year appointment period and earn an hourly wage at a GS1. CEP-High School students are encouraged to apply for CEP-College positions at the completion of their assignment to engage students in the pipeline and continue NASA workforce development.

### **College**

Students are recruited from local accredited degree granting college job placement offices. Students work 20 hours a week at JSC while pursuing a degree at a local community college or university. To accommodate college classes, student may work a flex-time schedule during standard JSC working hours. Participant pay scale is based on accumulated college credit hours. Students are given a one-year appointment with a one-year option for extension based on performance and organizational need. Students rotate to a different organization at the end of the program year. Each student will be responsible for coordinating their own assignments for the second program year of their assignment.

Participants of CEP are chosen for their outstanding commitments to academics and their interest level in science, technology, engineering, mathematics (STEM) and business fields.

### **Program Relevance to NASA**

The Vision for Space Exploration is communicated to the CEP students throughout their appointments. Students must understand and embrace the fundamental concepts of the Vision in order for the Vision to permeate change in their educational and career decisions. Center Outreach activities and program tours are used to compliment the students' hands-on learning experiences. Eighty-nine percent of students agreed that these activities helped them gain a greater understanding of NASA' overall purpose.

### **Program Benefits to Society**

By enriching the students' development and encouraging them to pursue educational and career opportunities in STEM, our State as well as our Nation's workforce is strengthened. As one student put it, "When I was little it didn't matter to me whether I would sing on the radio or act my heart out on the big screen; I was going to be famous when I grew up...Before working at NASA I never knew that there were other careers offered at JSC besides being an astronaut. I found the JSC Microbiology Lab and realized this is what I want to do. I love everything about the profession and to actually be able to classify myself as a Microbiologist at NASA would be surreal. And for me that pretty close to being famous."

### **Program Goals**

Goal #1 – Encourage students to stay in school by increasing awareness and interest in business and STEM career fields.

Goal #2 – Help students develop skills and exposure necessary for successful careers in NASA-related professions in business or STEM fields.

Goal #3 – Provide high school and college students with financial aid to promote their retention in school and to encourage pursuit of a college education.

Goal #4 – Provide additional clerical, administrative, and technical support to NASA/JSC.

Goal #5 – Create a mechanism to help students pipeline into other JSC student programs and eventually gain entry into the NASA workforce in business or STEM fields.

Goal #6 – Build partnerships with the community, government, industry, and educational institutions to enhance program efforts and maximize the number of students who are able to participate and benefit from a CEP experience.

### **Program Accomplishments**

- After participation in the program, the percentage of interest in science and business increased from 24% and 54% to 33% and 67% respectively.
- 95% of students were registered or attending college as full-time students at the end of the program year; 22% credited their NASA experience as having a significant impact on this decision.
- 54% of high school students will be first generation graduates.

- 62% of college students will be first generation college graduates.
- 65% of participants were from underrepresented groups.
- A majority (80%) of reporting students agreed or strongly agreed their mentors challenged their skill levels.
- 95% strongly agreed their experience was positive and 75% strongly agreed they learned more about careers related to NASA.
- Fostered partnerships with 10 area school districts and nine local community colleges and universities. In addition, USRA management supports the Bay Area Houston Economic Partnership workforce development meetings as well as a partnership with Texas Space Grant Consortium.
- Eight students remained in the NASA pipeline. Seven students sought employment with NASA contractors while one student entered NASA's Living with a Star Program.

### **Student Accomplishments**

- 22% of high school students and 18% of college students received academic scholarships from outside organizations with a total value of \$582,550. 40% of the students report CEP was moderately or very influential in helping them receive their award.
- Five students attended the Texas Space Grant Consortium's Design Challenge in Houston. They were paired with university design teams allowing them to network and ask questions about college, their choice of majors, and the projects themselves. They were then asked to partner with the Associate Editor of NASA's website to develop NASA Student Opportunity Podcast episodes for the NASA Portal featuring their experiences at the Design Challenge.
- One student participated in the Clear Creek Independent School District/NASA-JSC Robonauts FIRST Lone Star Regional Competition. The Robonauts won the competition along with their alliance partners and were the 2007 Lone Star Regional Winner.