

The **CREST-1 University Student Spaceflight Program (CUSSP)** is a new U.S. national STEM university education initiative designed to inspire the next generation of space scientists. Reservations are being taken now for a February 26 launch aboard STS-134, the historic last scheduled flight of the Space Shuttle.

### **About CREST-1**

American Aerospace has developed the **Commercial Reusable Experiments for Science & Technology (CREST)** program ([www.american-aerospace.net/crest1.html](http://www.american-aerospace.net/crest1.html)) to begin offering to academic and industrial communities routine, standardized and continuously available access to the space environment for experimentation and commercial development. The **CREST-1 mission** provides investigators with several flight-proven, miniature laboratories that are capable of simultaneously accommodating up to 120 separate investigations. This modular approach radically reduces the cost for scientists and engineers from academia, government and industry, as well as for student investigators.

This on-orbit research opportunity is enabled through NanoRacks LLC ([www.nanoracksllc.com](http://www.nanoracksllc.com)), which has a Space Act Agreement with NASA to develop utilization of the International Space Station as a National Laboratory. **CREST-1** utilizes the flight-proven Materials Dispersion Apparatus (MDA) from Instrumentation Technology Associates, Inc., which has flown on six prior Space Shuttle missions and six sounding rocket flights. Details of the operation and experiment possibilities of the MDA can be found on the website of another CREST-1 team member, the Student Spaceflight Experiments Program (<http://ssep.ncesse.org/sts134-flight-experiment/mda/>). The CREST-1 team is dedicated to creating routine, standardized access to the space environment, so that the promise of space commercialization can begin to be realized.

### **CUSSP Overview**

**CUSSP** is a unique opportunity for university students to conduct microgravity research utilizing equipment that has been successfully used to perform research in areas such as protein crystal growth, cell biology, zeolite crystallization, collagen polymerization, ceramic and polymer thin film membrane casting, and a variety of fluid physics studies, among other potential applications.

Because of the nature and design of the **CREST-1** mission, **CUSSP** participants are free to concentrate on performing effective scientific experiments. The CREST-1 team handles the hardware, integration, interfacing with NASA, and all the other aspects of managing such a program. Experiments must be delivered to the CREST-1 laboratory near Kennedy Space Center one month prior to launch. This late loading feature, along with early retrieval of experimental materials upon Shuttle landing, removes many program management difficulties from experimenters, and increases the value of the results. Researchers retain 100% rights to experimental materials and data from the CREST-1 mission.

### **How to Participate in CUSSP – Time Critical**

Through **CUSSP**, university student investigators are being offered an opportunity to fly experiments at the discounted price of **\$6,750.00 per experiment slot**. This cost includes late integration, safety review, launch, sample return and early post-landing sample recovery.

**Critical Deadline:** American Aerospace will accommodate all university student experimenters that reserve their launch opportunity by **August 2, 2010**, and as many as possible thereafter.

**For more information, please contact:**

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