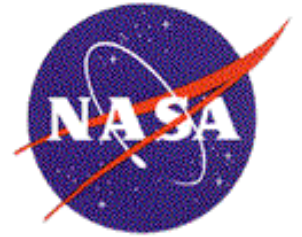


NASA Dryden Flight Research Center

National Aeronautics and
Space Administration



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Cooperative Education Program

Program Description:

The NASA Dryden Flight Research Center Cooperative Education (Co-op) Program is designed to provide work experience to undergraduate and graduate college students who are pursuing degrees in fields related to Dryden research. The majority of the co-ops are aeronautical/aerospace, electrical, and mechanical engineering majors, but the program also includes students working with administrative personnel.

Co-ops are included in various research programs that are structured to apply the basic principles and theories of their major field of study and to provide an opportunity to determine the type of work for which they are best suited. Students enter a program of alternating school and work assignments that involves increasing degrees of difficulty. Co-ops work under the supervision of engineers on projects such as systems design, flight test experiments, computer studies, and simulation. Their work is evaluated by their supervisors after each work assignment. By their last work period, students are working with a minimum of supervision on complex research problems that may result in joint authorship of a research paper. This program is **NOT** intended as a summer internship.

Program Objective:

Through the Cooperative Education Program, Dryden strives to acquaint students with its mission and programs in aeronautical research and to expand their academic training through work experience with NASA personnel in research management.

Eligibility Requirements:

Applicants for this program must:

- Be enrolled full-time or part-time in an accredited educational institution in the U.S. (must have completed freshman year)
- Be at least 16 years old.
- Be a **U.S. citizen**
- Have demonstrated very strong aptitude in the major field of study and a wide variety of extracurricular interests and leadership activities.
- Must be available for an alternating work/school schedule.

Application Process:

Students are strongly recommended to apply through the Cooperative Education office or through a liaison at the institution they are attending. Resumes must indicate education background, GPA (3.2 minimum), graduation date, objective, citizenship, and indicate the semester available to start (i.e. Spring: Jan.- May; Fall: Sept. - Dec.). Resumes not containing all required information may lose consideration. Applications should include a copy of current transcripts (unofficial transcripts or web printouts are acceptable) **or** resumes should list relevant coursework. Spring Selections: Cut off date for incoming resumes is **October 3rd**. Fall Selections: Cut off date for incoming resumes is **March 1st**.

How does the co-op program work? The co-op students start in the fall or in the spring (they take a semester off school to work). The summers are reserved for returning co-ops (from the fall or previous spring). Graduate students are encouraged to apply for the fall or spring semester; however, they may be selected for two summer co-op terms. The student should be able to work at least three terms before graduation; however, the program requires students work a minimum of two terms. If the student has a while before graduation then they must return to work for more than two sessions.

These are some of the organizations and tasks co-ops are typically assigned to:

Aerodynamics Branch (RA): Leads the design, implementation, analysis and reporting of all aerodynamic flight research experiments conducted at Dryden.

Controls and Dynamics Branch (RC): Provide research engineering expertise in the analysis, design, development, integration and testing of flight control systems for flight vehicles.

Flight Systems Branch (RF): Responsible for the design, integration and test of flight-critical hardware and software systems.

Instrumentation Branch (RI): Responsible for the design, development, fabrication, installation and calibration of instrumentation systems for flight research vehicles at Dryden.

Propulsion and Performance Branch (RP): Conducts flight research in many aspects of air-breathing and rocket propulsion, from conventional turbojets to scramjet engines.

Aerostructures Branch (RS): Conducts analytical and experimental investigations in structural and aerodynamic loads, aeroelasticity, and aerodynamic heating.

Systems Engineering Branch (ME): Develops simulation to show how research aircraft will react to various flight conditions. Also develops display systems for monitoring aircraft in flight.

Operations Engineering Branch (OE): Responsible for all modification to Dryden's flight research vehicles, and responsible for the safety of flight and in-flight mission control.

NASA CENTERS

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For information on other student opportunities, please visit <http://www.nasajobs.nasa.gov/> or <http://education.nasa.gov/> .