At a Glance

- One-year program
- Fall and spring semesters at CUA and NASA-Goddard Space Flight Center
- Summer at NASA-Goddard
- Four to five elective courses at CUA in engineering and/or physics per semester
- Opportunities in hardware development and testing of space- and ground-based instruments
- Same requirements as the Brazilian Science without Borders Program

Fast Facts about Engineering and Physics

- B.S., M.S., Ph.D. degrees in biomedical, civil, electrical, mechanical engineering, and computer science; M.S. degree in materials science and engineering
- B.S., M.S., Ph.D. degrees in physics. Research programs in astrophysics, biophysics, materials science, nanoelectronics, nuclear and hadronic physics, solid-state physics, and solar physics
- Internship opportunities in Washington, D.C., metropolitan area

Fast Facts about CUA

- About 7,000 enrolled students
- Centrally located, garden campus
- On-campus sports and fitness facilities
- More than 100 student clubs and organizations

Fast Facts about Washington, D.C.

- Capital of the United States of America
- Free world-class museums and monuments
- Professional soccer, basketball, football, baseball, hockey
- Wide variety of concerts and arts

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Celebrating 125 Years

The Catholic University of America
Washington, DC 20064

The Catholic University of America admits students of any race, color, national or ethnic origin, sex, age, or disability.
Projects at NASA-Goddard Space Flight Center

The NASA-Goddard Space Flight Center (GSFC) is currently building in-house propulsion systems for the Magnetospheric MultiScale (MMS) mission and the SMART mission. Students will assist in designing, analyzing, and building these instruments and propulsion systems; ideal candidates would have experience with basic laboratory tools and be team players.

- The MMS mission is a constellation of four spacecraft with a blowdown hydrazine propulsion system consisting of four diaphragm propellant tanks and 12 thrusters in each satellite
- The SMART mission is a demonstration mission with advanced onboard technologies including a new High Performance Green Propulsion system
- Two instruments are being constructed: PIPER (balloon-borne telescope) and CLASS (ground-based instrument) to measure polarization of the cosmic microwave background to a high precision in order to search for evidence of an inflationary epoch early in the universe
- The Balloon Experimental Twin Telescope for Infrared Interferometry is being designed at GSFC for high angular resolution astronomy at Far-Infrared wavelengths and to set the stage for future space interferometers

Space Science and Engineering in Washington

- Departamento de Física e a Escola de Engenharia da CUA estarão recebendo estudantes do Programa Brasileiro Ciência sem Fronteiras durante o primeiro e segundo semestre de 2012
- Os estudantes brasileiros que forem contemplados com bolsas dentro do programa farão de 6-8 cursos na CUA e trabalharão nos projetos hands-on no Goddard Space Flight Center sob a supervisão dos cientistas e engenheiros da NASA
- Os cursos serão escolhidos dependendo do interesse do estudante e do estágio em que o estudante se encontra no curso brasileiro
- Este ano o programa se concentrará principalmente em estudantes cursando engenharia elétrica e mecânica no Brasil, mas outras áreas da engenharia e física também serão consideradas dependendo da demanda
- Os interessados devem entrar em contato direto com a professora Duília de Mello no email duilia.f.demello at nasa.gov ou demello at cua.edu
- Os estudantes deverão procurar informações sobre o CsF e seguir as regras do programa brasileiro

Space Science Opportunities for CUA Students

Catholic University is located near and has ongoing relationships with several facilities and organizations involved in space science and related areas:

- NASA-Goddard Space Flight Center in Greenbelt, Md.: CUA students participate in ongoing projects, including engineering, earth sciences, and astrophysics.
- Universities Space Research Association in Columbia, Md.: Enables collaborations between universities and other organizations to develop knowledge associated with space science and technology.
- Consortium of Universities in the Washington, D.C. area: CUA is one of 14 universities that provide opportunities for cross registration of students so they can pursue a space science curriculum at CUA and take additional courses at the other consortium universities.
- Space Policy Institute, Washington, D.C.: Offers graduate courses at The George Washington University in space policy and space law.
- Maryland Space Grant Consortium, Baltimore, Md: Offers a wide variety of activities through Johns Hopkins University that target higher education, scientific research, and public outreach.