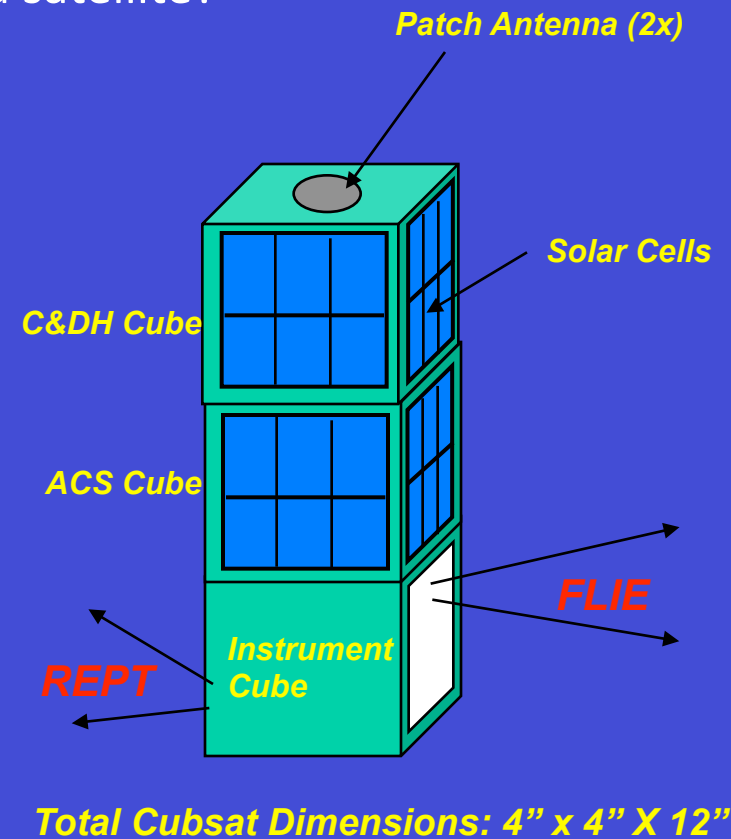


# ASEN 5519 Spacecraft Hardware Design-11013

Interested in designing and building a satellite?

- This course, part-I of a two course sequence, is designed to teach the fundamentals of spacecraft hardware design using a hands-on approach.
- The course being offered in spring 2009 will focus on:
  - Attitude control and determination
  - RF communications (likely VHF, UHF or s-band)
  - Electrical power system (power conversion and management)
  - Command and data handling system
  - Radiation tolerant architectures
  - Thermal analysis and control
  - Structural analysis and design
  - Mission design and operations planning
- It is expected that an engineering prototype of the satellite will be constructed in the fall semester.



This course (call number: 11013) is open to all engineering majors in addition to physical science majors, however space is limited. Class meets for 1 hour of lecture and 4 hours of lab each week. Students will work closely with LASP (Laboratory for Atmospheric and Space Physics) engineers to accomplish the project. If interested and having any questions, please contact Profs. Xinlin Li ([lix@lasp.colorado.edu](mailto:lix@lasp.colorado.edu)) , Joe Tanner ([Joe.Tanner@colorado.edu](mailto:Joe.Tanner@colorado.edu)) or Scott Palo ([palo@colorado.edu](mailto:palo@colorado.edu)) for more information.

**Note: This two-semester course can also be used to satisfy the AES/MS requirement for 6 credits of project work.**