



North Carolina Space Grant
Box 7515, NC State University
1009 Capability Drive, Suite 210
Raleigh, North Carolina 27695-7515
(919) 515-4240 • (919) 515-5934 (fax)
www.ncspacegrant.org

NASA Exploration Systems Mission Directorate (ESMD) Senior Design Project Grants

NC Space Grant is soliciting proposals from its member institutions for projects that integrate ESMD-provided mission challenges into university senior engineering design courses. NASA has identified Spacecraft, Propulsion, Lunar and Planetary Surface Systems and Ground Operations as critical areas to the future of space exploration. As a result, funded proposals must be related to one of these areas. This year, ESMD Senior Design Projects *must* be chosen from the list found at found on the ESMD Space Grant Program website at http://education.ksc.nasa.gov/ESMDspacegrant/Sr_Design.htm. Selected teams will receive guidance from the NASA technical expert for the project.

NC Space Grant anticipates supporting three student teams from its member institutions to participate in the NASA ESMD Senior Design Project. The maximum award available per student design team is \$2,000. Funds can be used to support student senior engineering design projects (i.e., to buy materials, build prototypes, etc.) or to bring in subject matter experts to consult with the students. Equipment purchases are not allowed.

Proposal Guidelines

Each student group is required to write a short abstract (250 words or less) and project description (1-3 pages) that includes:

- Description of the design project; must reference the project ID, NASA center, and ESMD area (from the ESMD Senior Design project list)
- Description of how the project directly supports the identified ESMD-related priorities
- Team makeup (including names and disciplines of each student; if unknown at time of proposal deadline, note how many students will be on team)
- Expertise of faculty mentor and other mentors
- Full project budget and description with request not to exceed \$2,000

Eligibility

- Group projects are preferred, however individual projects may be considered in special circumstances.
- All group members must be U.S. citizens.
- Students must be enrolled in senior design courses, and begin design work sometime during the 2008-2009 school year (starting in either the Fall 2008 or Spring 2009 semester).
- Projects must be relevant to ESMD research objectives.
- Projects must be approved by the ESMD (once approved by NC Space Grant, ESMD will issue final approval).

Expectations for Students

NC Space Grant Expectations:

- Each student group is expected to keep NC Space Grant informed of their progress (this can include copies of written reports, and/or invitations to sit in on review meetings).
- A final report on the project is required (electronic and hardcopy).
- NC Space Grant would like to receive pictures of your group members working on your project for use in reporting to NASA, newsletters, and other publicity.



North Carolina Space Grant
Box 7515, NC State University
1009 Capability Drive, Suite 210
Raleigh, North Carolina 27695-7515
(919) 515-4240 • (919) 515-5934 (fax)
www.ncspacegrant.org

- NC Space Grant is required by NASA to keep in touch with all awardees of significant programs at least until they receive their first job after receiving their highest degree. If you receive support through this program, expect to keep in touch with NC Space Grant for some time after the completion of your project (minimum info we'll need is an updated e-mail address so we can contact you if required).

ESMD Expectations:

- ESMD will determine whether or not a project will receive funding.
- ESMD Senior Design Project participants are encouraged to join the "ESMD Community of Practice" on the PBMA website to provide feedback, participate in the discussion threads, and collaborate with the entire ESMD Space Grant community.

Proposal Submission

Proposals must be submitted in PDF format to jcook@ncspacegrant.org by **October 22, 2008**. Award announcements will be made by October 31, 2008. Projects selected for funding will receive payments through the proposing institution's Office of Sponsored Projects.

For questions related to the ESMD Senior Design Project, please contact Jobi Cook at (919) 515-5933 or jcook@ncspacegrant.org.