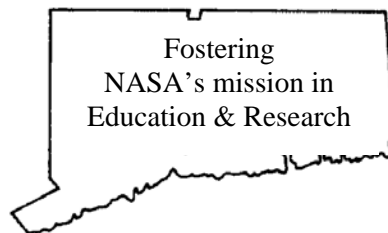




Connecticut Space Grant College Consortium



REQUEST FOR PROPOSALS

Faculty Programs

Research Grants - \$20,000

Seed Research Grants - \$6,000

Research Collaboration Grant - \$15,000

Curriculum Development Grant - \$7,500

Travel Grants - Up to \$1,000

Updated: October 15, 2009

History: In order to encourage broader participation in NASA research programs, Trinity College, University of Connecticut, University of Hartford, and the University of New Haven formed the Connecticut Space Grant College Consortium in 1991. The philosophical intent of this program was, and continues to be, to build a research infrastructure in Connecticut which supports the aerospace, space science, engineering and technology related initiatives of federal and state government and private industry.

Research infrastructure includes all factors that promote the development and maintenance of research activity. These include, but are not limited to, faculty and student seed funds for research, development or revision of curricula, and travel to use NASA facilities, cultivate collaborative arrangements or proposal contacts, technical support, and dissemination of research results. Due to the relatively small size of awards, the applicant should be aware that the Consortium is interested in supporting scholars new to their fields, and those experienced researchers who are looking to redirect their research or refocus on NASA's objectives. These funds are seed money and not a replacement for other sponsored research funds or institutional funds.

Contact Points: Each **Consortium Member** institution has a Campus Director (listed below). Questions should be directed to that person. If you are unable to contact the appropriate Campus Director, inquiries may be directed to the Consortium Office.

Dr. Alfred Gates, Campus Director
Central Connecticut State University
School of Technology
1615 Stanley Street
New Britain, CT 06050
860-832-1823
gatesa@ccsu.edu

Dr. Harry Blaise, Campus Director
Trinity College
Department of Engineering
300 Summit Street
Hartford, CT 06106
860-297-2225 860-297-3531 (fax)
harry.blaise@trincoll.edu

Dr. Carl Barratt, Campus Director
University of New Haven
Mech/Civil & Environmental Engineering
300 Orange Avenue
West Haven, CT 06516
203-932-7396 cbarratt@newhaven.edu

Dr. Karen Wosczyzna-Birch, Campus Director
CT Community Colleges' College of Technologies
61 Woodland Street
Hartford, CT 06105
860-677-8966
karenlee@snet.net
www.nextgenmfg.org
www.commnet.edu

Dr. Junling (Joyce) Hu, Campus Director
University of Bridgeport
Department of Mechanical Engineering
221 University Avenue
Bridgeport, CT 06604
203-576-4757 203-576-4343 (Fax)
jju@bridgeport.edu

Dr. Martha Gilmore, Campus Director
Wesleyan University
Earth & Environmental Sciences
265 Church Street
Middletown, CT 06059
860-685-3129 860-685-3651 (Fax)
mgilmore@wesleyan.edu

Dr. Elizabeth A. Cowles, Campus Director
Eastern Connecticut State University
354 Science Building
83 Windham Street
Willimantic, CT 06226
860-465-4385 860-465-5213 (Fax)
cowlese@easternct.edu

Dr. Donald Peterson, Campus Director
University of Connecticut
Director, Graduate Program, Biomedical Eng.
Room 205, A.B. Bronwell Building
260 Glenbrook Road, Unit 2247
Storrs, CT 06269-2247
860-486-0372 860-486-2500 (fax)
peterson@engr.uconn.edu

Dr. Hector Arce, Campus Director
Yale University
Department of Astronomy
P.O. Box 208101
New Haven, CT 06520-8101
203-432-3018
hector.arce@yale.edu

Dr. Bill Taylor, Campus Director
Fairfield University
School of Engineering
1073 N. Benson Road
Fairfield, CT 06824
203-254-4000 x2501 203-254-4013 (Fax)
htaylor@mail.fairfield.edu

Dr. Donald Peterson, Campus Director
UConn Health Center
School of Medicine, Dental Medicine Science
263 Farmington Avenue
Farmington, CT 06030-2017
860-679-4665 860-679-1989 (Fax)
peterson@uchc.edu

Dr. John DaPonte, Campus Director
Southern Connecticut State University
Computer Science Department
501 Crescent Street
New Haven, CT 06515
203-392-5810 203-392-5898 (Fax)
daponte1@southernct.edu

Dr. Mako Haruta, Campus Director
University of Hartford
College of Arts & Sciences
200 Bloomfield Avenue
West Hartford, CT 06117
860-768-5261 860-768-5244 (fax)
haruta@hartford.edu

Consortium Office:

University of Hartford
200 Bloomfield Avenue (Dana 203)
West Hartford, CT 06117
<http://uhweb.hartford.edu/ctspgrant>

Dr. Thomas Filburn, Director
filburn@hartford.edu
860-768-4843 860-768-5073 (fax)

Dr. Saeid Moslehpour, Assistant Director
moslehpu@hartford.edu
860-768-4211 860-768-5073 (fax)

Teresa Turner, Program Coordinator
ctspgrant@hartford.edu
860/768-4813

Proposal Development Considerations:

Each application requires that a contact is made with either NASA or other federal agencies with aerospace or space related interests. In some cases a contact with private industry may be appropriate. These contacts can be facilitated through the Consortium Office or Campus Director.

A proposal must demonstrate a link between the proposal work and one of NASA's strategic enterprises. They are Space Science, Earth Science, Human Exploration and Development of Space, Aero-Space Technology and Physical/Biological Science.

Faculty who respond must show a 1.5:1 cost match ratio within their budgets. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium.

Preference will be given to faculty proposals which include student involvement.

For use of NASA facilities, University Affairs Offices at NASA Centers must be contacted. Contact information and NASA facility missions statements may be found at each of the NASA facilities web sites. For a directory of facility web sites see: <http://www.nasa.gov/about/sites/index.html>

Review of Proposals:

The proposal review committee is composed of at least fourteen individual members, including one representative from each member institution. The reviewers are normally selected from but not limited to the Academic Advisory Board. Reviews are performed a few weeks after the submission of proposals. The reviewers may request additional information, if needed. The request will be made through the Consortium Office. Decisions are anticipated within six weeks.

Selection Criteria:

Abstract	10pts.
Degree to which this proposal is relevant to aerospace research, space science or technology research and development, and/or training in these fields	10pts.
Plan of the research: goals, objectives, and methodology	10pts.
Interdisciplinary approach to the problem	10pts.
Expected outcome: innovative potential and milestones	10pts.
Career potential: relationship to prior work and future plans	10pts.
Research contact: agency or corporation, extent of contact	10pts.
Tenure track/non-tenured applicant	10pts.
Collaboration (within CT Consortium – More for collaborations outside Connecticut)	10pts.
Student involvement (supported) in the research	10pts.
Total	100pts.

Evaluation of Funded Projects and Reporting Requirements:

A project report is due the February which follows the award period. A reporting format will be provided to awardees. The Consortium considers a successful project an investment in the future of the researcher, their department and the institution. Therefore the following outcomes represent success: patents and published papers, increased institutional collaboration, and an increase in the number of proposal submissions. Each researcher is to inform the Consortium office of publications, patents and proposals that result from their receiving Space Grant funding.

Funds Distribution:

Research Collaboration, Curriculum Development Grants & Faculty Research Grants: Will be funded as subcontracts to member institutions. Execution of a subcontract* is required prior to issuance of a purchase order and distribution of funds.

Travel Grants: Require the completion of an expense form and submission of receipts. No travel advances are allowed from Consortium funds.

Application Submission*: Submit application via the on-line system. A copy will be shared with your Space Grant Campus Director. See checklists on pages 8 and 9.

Project Periods:

Awards may be for:

Summer	June 1 st – August 31 st
Academic Year	September – May
Calendar Year	June – May

Poster Session - Faculty will be required to furnish a research poster for the spring reception following the completion of their project.

(*Note to University of Hartford faculty applicants: Since the Consortium accounting is handled through the University of Hartford, no subcontracts are needed. The Consortium Office in conjunction with the Grants' Office will coordinate financial activities).

Connecticut Space Grant College Consortium Projects Directory

	Page
Curriculum Development or Enhancement Grant	5
Research Collaboration Grant	6
Faculty Research Grant/Faculty Seed Research Grant	7
Faculty Application Checklist	8
Travel Grant & Travel Application Checklist	9
Application Forms (Download from Website)	
Faculty Application Cover Sheet	10
Budget Sheet	11
Longitudinal Tracking Form	12

Curriculum Development or Enhancement Grant Program

The Science and Engineering Community has advocated that curriculum reform must occur on a variety of levels if the United States is to remain internationally competitive. Areas requiring enhancement to address the needs of the aerospace and space science community include: the topics of the curriculum, the development of a problem-solving learning style, the methods of delivery of instruction, and active student participation in a research environment. Science and Engineering reform experts emphasize the importance of cooperative learning experiences for undergraduates, and the development of more interdisciplinary science courses.

Since its 1994-99 Strategic Plan the NASA National Space Grant College and Fellowship Program has actively encouraged faculty members to make those curriculum enhancements, which will more effectively prepare students to become successful professionals in aerospace and space-related sciences.

While proposals of creative and innovative merit are actively sought, applicants should be aware that a body of previously developed models exists, and may only need adaptation to a local setting. Applicants should call NASA's University Affairs Center or the Consortium Office for information on currently developed materials, and indicate their review of materials on their applications. There are serious obstacles to curricular reform, which must be addressed in the applicant's proposal: institutional implementation support, faculty support, and availability of equipment or facilities.

Eligibility and Award Information – It is anticipated that one award of \$7,500 will be awarded for the program year. Since the award is given to an institution rather than an individual, a subcontract must be executed prior to funding the award. *Reminder: Faculty who respond must show a 1.5:1 cost match ratio. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium.*

Proposal – See Faculty Application Checklist (page 8).

Research Collaboration Grant Program

Following the lead of the National Space Grant College and Fellowship Program, the Connecticut Space Grant Consortium has established a diverse and vital network of colleges, industries, and research facilities to encourage faculty at Consortium institutions to use individual strengths to enhance the capabilities of two or more institutions. Through our Research Collaboration Program our goal is to share intellectual capital, leveraging resources to enhance national capability and accomplish research goals which fit NASA's mission and/or the needs of the local corporate community.

Eligibility and Activity Guidelines – Applications must come from two or more full-time faculty members in different departments at the same institution or at least two separate Consortium institutions (CT affiliates or other state Consortium affiliates). Evidence of contact with a NASA field center or NASA contractor must be included in the proposal. Contacts may also be facilitated through Faculty Forums held throughout the year and at Topical Symposia organized at NASA Centers. If there is interest in Consortium sponsorship of a Symposium on a specific topic, please let us know.

Preference will be given to applicants who have never collaborated in the past or have not collaborated within the past five years. The Consortium strongly encourages multi-institution collaboration.

Award Information – It is anticipated that one award of \$15,000 will be made during the program year. Since this is an institutional award, a subcontract for each institution will be executed. No indirect costs may be charged. However, fringe benefits are an allowable cost. Equipment purchases are not permitted using NASA grant funds. However, you may include costs for use of equipment toward your grant's required 1.5:1 matching contribution. *Reminder: Faculty who respond must show a 1.5:1 cost match ratio. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium*

Proposal – See Faculty Application Checklist (page 8).

Faculty Research Grant

To encourage faculty participation in research in areas related to the mission of NASA at Connecticut Space Grant College Consortium member institutions, the Consortium will award two faculty research grants during the program year. It is anticipated that three awards of up to \$20,000 each and four awards of up to \$6,000 each will be made during the program year. Preference will be given to investigators who 1) are tenure track/non-tenured faculty, 2) who use these funds as seed money, 3) who collaborate with other Consortium faculty (within CT and additional preference for those who collaborate with other states' Consortium faculty), and 4) whose research involves/supports students. As with any Consortium Grant, these research grants are not intended to be a substitute for regular research grants. Since this is an institutional award, a subcontract will be executed.

Eligible Activities – Research in any area related to the mission of NASA as illustrated by its strategic enterprises.

Eligible Applicants – Full-time Faculty at Consortium Member Institutions

Eligible Budget Items – The budget may include items such as technician and support staff salaries, summer salaries, student stipends, fringe benefits, supplies, and materials. No indirect costs may be charged to the NASA Grant, however indirect charges may be included within the matching contributions, but are limited. Contact the Consortium for details. To avoid duplication with other Consortium Grant programs, travel may not be charged to a Faculty Research Grant. *Reminder: Faculty who respond must show a 1.5:1 cost match ratio. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium*

Proposal – See Faculty Application Checklist (page 8).

Faculty Application Checklist

Proposals must be submitted via the on-line application system, typed in no smaller than 10 point font, double spaced with margins of at least 1" on 8 1/2" x 11" paper. Page limits are strictly observed. Proposals that exceed the page limit will be returned to the applicant unreviewed. Note: all required components of the application should be saved as a single file if possible and uploaded within the faculty on-line application. You may, however, upload several files within the online system.

- **Proposal Cover Sheets:** Download the form from the CT Space Grant website and obtain the signatures of your institution's Department Chair and Campus Director before scanning along with the other application materials into a single file for uploading into the online application.
- **Proposal Abstract:** Type directly into the on-line application system. One page maximum – include a paragraph on relevance to aerospace research and demonstrate linkage to one of NASA's strategic enterprises. (Abstract not needed for Travel Grants.)
- **Proposal Narrative:** Please scan your narrative along with the other application materials into a single file and upload that file into the on-line application. Page maximum – six double-spaced pages (Travel Grant Narrative requires a two page maximum, see next page.) Proposal Narratives should include the following sections:
 1. Project Plan, goals, objectives & methodology
 2. Interdisciplinary approach to the problem
 3. Expected outcomes
 4. Career potential
 5. Budget explanation (narrative, please still attach a completed Budget Worksheet)
- **Budget Worksheet:** Download the Budget Worksheet from the CT Space Grant website. Complete it and scan along with the other application materials as a single file then upload the file into the on-line application. Please be sure to include a Budget Worksheet for each institution involved in collaboration grant proposals. *Reminder: Faculty who respond must show a 1.5:1 cost match ratio. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium*
- **Resume/Curriculum Vitae:** Upload as a file into the on-line application. (One page per collaborator.)
- **Diversity Information Data Sheet:** Typed directly into the on-line application system within the registration section. For collaboration grant proposals, please download the Optional Information sheet from the CT Space Grant website and complete it for each collaborator (not the PI) and upload into the online application. (One page per collaborator.)
- **Submission:** All proposals and attachments should be submitted via the on-line application. Copies will be shared with your Space Grant Campus Director.

Travel Grants

To encourage travel to NASA facilities to use their unique resources and present Space Grant and NASA funded research at Conferences, the Connecticut Space Grant College Consortium awards travel grants. During the Space Grant Program Year, the Consortium expects to award multiple travel grants, based upon available funding.

Eligible Travel – Travel supported by travel grants may include, but is not limited to, trips to NASA facilities to use specialized research equipment, trips to NASA Centers to discuss collaborations with NASA scientists and engineers, attendance at pre-proposal conferences sponsored by NASA, presentation of Space Grant funded research at conferences, giving plenary or invited papers at conferences, visits by NASA scientists/engineers to campuses for research collaboration. In accordance with NASA restrictions, the Consortium only supports domestic travel.

Eligible Applicants – Faculty and Students at Consortium Member Institutions.

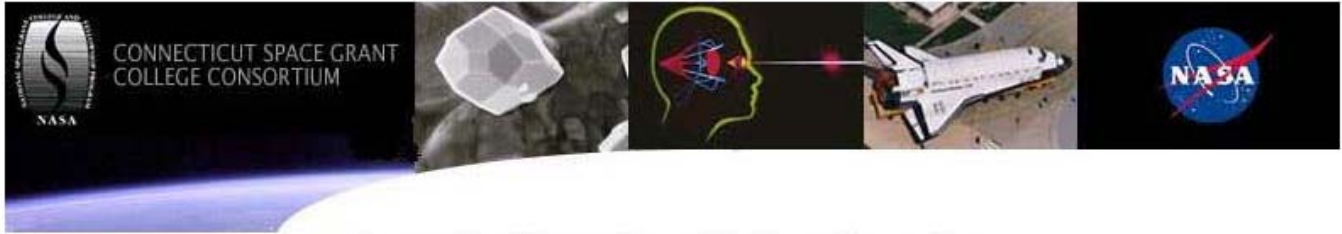
Budget – Travel may be funded up to a maximum of \$1,000 (the Consortium reserves the right to adjust funding requests based upon the number and quality of applications). Funds will be paid directly to the recipient at the conclusion of the trip after submission of receipts to the Consortium Office. No travel advances are allowed. Proposals including matching funds are strongly encouraged.

Reporting – At its conclusion, each funded travel grant will be required to submit a short report (hard copy and e-copy) to the Consortium Office.

Proposal Format – Complete the on-line application and upload as a single file 1) the Cover Page with the necessary institutional signatures, 2) the proposal narrative (meeting the page limits) (+ optional information sheets for each of the non-PI collaborators), 3) copy of the event/conference invitation/letter or conference paper acceptance, and 4) the budget worksheet. [You may also attach 5) any other letters of support/supporting materials that you would like to include]. The Proposal Narrative must be typed in no smaller than 10 point font, single spaced with margins of at least 1” on 8 1/2” x 11” paper. Page limits are strictly observed. Only the language within the page limits will be reviewed.

- **Cover Page** – Download the form from the CT Space Grant website and obtain the signatures of your institution’s Department Chair and Campus Director before scanning along with the other application materials into a single file for uploading into the online application.
- **Narrative** – Attached as an electronic file to the on-line application. Outline description and rationale for the travel and how you will fund the travel if you do not receive full Space Grant funding. Page Limit: Two Single Spaced Pages.
- **Invitation** – Scan and Attach with the other application materials as a file into the on-line application. *Other examples: Letter or Conference paper acceptance notice (copy of email or WEB page of program acceptable).*
- **Resume/Curriculum Vitae** – Upload file into the on-line application. One page maximum.
- **Budget Worksheet/Estimated Cost** – Download the Budget Worksheet from the CT Space Grant website, complete and attached with the Cover Page, Project Narrative into a single file then upload the file into the on-line application. Please include a budget justification, one page maximum.
- **Diversity Information Data Sheet:** Typed directly into the on-line application for the PI within the applicant registration pages. For additional collaborators, please download the Optional Information form from the CT Space Grant website. Complete one for each collaborator and then scan with other application materials before uploading as a single file into the on-line application.

Cover Sheet *(Download from CT Space Grant Website)*



Connecticut Space Grant College Consortium Faculty Application _____ Program Year

- Curriculum Development Research Collaboration
 Research Grant Travel

Name: <i>Last</i> _____			_____ <i>First</i>			_____ <i>MI</i>					
Rank/Title:			Tenure Status:								
Department:			Consortium Member Institution:								
Mailing Address:											
Phone:			Fax:			Email:					
Project Title/Trip Destination: _____											
Proposed Research Period/Travel Dates:											
<input type="checkbox"/> Summer			<input type="checkbox"/> Calendar			<input type="checkbox"/> Academic			<input type="checkbox"/> Travel Dates _____		
Research Collaboration / NASA Center Collaboration:											
Institution & Department / NASA Center:											
Collaborator/University Affairs Officer:											
Budget Request: \$ _____ Match (1.5:1) Commitment Amount: \$ _____											

Institutional Certification	<input type="checkbox"/> Signatures below certify that the PI's institution approves of the matching funds commitment indicated above and acknowledges an understanding that if this proposal is awarded, the PI's institution will need to enter into a sub-contract between itself and the University of Hartford before any NASA/CT Space Grant Consortium funds can be disbursed.
PI's Institutional Signature: _____	
Date: _____	
PI's Department Chair Signature: _____	
Date: _____	
Eligibility Certification	<input type="checkbox"/> I certify that all of the information contained in this application is complete and correct and that I meet all of the eligibility requirements for this program.
PI's Signature: _____	
Date: _____	

For Consortium Use Only	
Award: <input type="checkbox"/> Yes <input type="checkbox"/> No Amount: \$ _____	
Date Sub-Contract Sent to Institution: _____ Date Sub-Contract Fully Executed: _____	

Budget Worksheet *(Download from CT Space Grant Website)*

Connecticut Space Grant College Consortium Faculty Application Budget Sheet

Title:				
Applicant:				
Institution:				
Proposed Budget				
		CT Space Grant Funds Requested	Institutional Matching Contribution	Total Cost
A. Salaries				
1. Applicant				0
2. Clerical				0
3. Subtotal (Full-time)		0	0	0
4. Full-time Fringe	0.00%	0	0	0
5. Research Asst.				0
6. Undergraduate Student(s)				0
7 Subtotal (Part-time)		0	0	0
8. Part-time Fringe	0.00%	0	0	0
Subtotal A		0	0	0
B. Supportive Expenses:				
1. Travel				
2. Supplies				
3. Rentals				
4. Telephone				
5. Postage				
6. *Equipment				
7. Printing				
8. Other Expenses (Identify)				
a.				
b.				
c.				
9. Subcontract ***				
Subtotal B		0	0	0
**Indirect Costs	0.00%			
TOTAL PROJECT COSTS		0	0	0

REMINDER: Faculty who respond must show a 1.5:1 cost match ratio. For example, if you are responding to a \$20,000 research grant, your budget needs to show \$50,000 with a \$30,000 match and \$20,000 supplied by the Consortium

*CT Space Grant funds cannot be used for equipment purchases. Please refer to guidelines regarding use of equipment costs toward meeting your 1.5:1 matching contribution.

Indirect Costs may **not be charged to Space Grant Programs. They may be included as part of the institutional contribution.

***All Subcontracts must include a separate budget, work statement and hourly rate breakdown.

Sample Longitudinal Tracking Form

Faculty Summary of Longitudinal Tracking Data

Faculty Name:										EDUCATION		STEM EMPLOYMENT			OTHER		
List Students involved on project receiving direct support from Space Grant Funds	Diversity								Degree prusuing	Still Enrolled in Current Degree Program	Graduated and Pursuing Advanced STEM Degree	Graduated and seeking STEM Employment	Employed in STEM Position ¹	Employed by NASA/JPL ²	Employed in STEM Academic Field ³	All Other (e.g. non-STEM employment, non-STEM academic degree) ⁴	
	Gender	Caucasian	African American	Hispanic	Asian	Pacific Islander	Native American	Disability									
Sample Student 1	F						✓		BS	✓							
Sample Student 2	M	✓							MS		✓						
Sample Student 3	F			✓					MS			✓					
Sample Student 4	M	✓							PhD	✓							
Sample Student 5	M		✓						BS				✓				
Sample Student 6	F								PhD						✓		
Sample Student 7	M								BS				✓				
Sample Student 8	F				✓				MS					✓			
Sample Student 9	M					✓			BS							✓	

¹ Employed in a STEM position with government, for profit, or non-profit organization
² Civil service employee or JPL employee
³ Faculty, teacher, or other academic position (K-Higher Education) in a STEM field
⁴ Employment or pursuing advanced degree in non-STEM industry, academia, or other government