2008 Undergraduate Research Opportunities
Mesoscale & Climatological Studies

Hobart & William Smith Colleges
Summer Research Program
June 2 – July 25, 2008

Six Student Positions Available

For questions or more information contact:

Professor Neil F. Laird
Department of Geoscience
Hobart and William Smith Colleges
(laird@hws.edu; (315) 781-3603; http://people.hws.edu/laird)

Student Positions sponsored by The National Science Foundation
Announcement: HWS Summer Research Program

Summer 2008 Undergraduate Research Opportunities
June 2 – July 25, 2008

Lake-Effect Snowstorms, Great Lakes Ice Cover, and Summer Lake Breezes

Hobart & William Smith Colleges
Funds provided by the National Science Foundation

Program Description
Six summer research positions are available for undergraduate students to examine several aspects of lake-effect snowstorms, Great Lakes ice cover, and summer lake-breeze circulations using a variety of meteorological data sets. Accepted students will conduct research investigations in close collaboration with Dr. Neil Laird during an 8-week summer program at Hobart & William Smith Colleges from June 2 through July 25. Students will receive a $2,800 summer salary, a food allowance of $800, free housing (with kitchen facilities) on the Hobart & William Smith Colleges campus, and reimbursement of travel costs to and from Geneva, NY.

The research topics which will be investigated during the summer research program include:

Lake-Effect Snowstorms: This study will examine historical lake-effect snowstorms associated with several smaller mid-latitude lakes (e.g., New York State Finger Lakes) and the Great Lakes. Data analyses will include utilization of WSR-88D radar data and climatological data sets.

Great Lakes Ice Cover: This research will integrate historical Great Lakes ice cover data sets with meteorological measurements collected over the last 35 years to understand the influence of weather conditions on rapid change ice cover events.

Summer Lake-Breeze Circulations: This investigation will determine the climatology of lake breezes throughout the Great Lakes region and understand their impact on near shore environmental conditions. In addition, the impact of the stable marine boundary layer on severe thunderstorm development over the Great Lakes will be examined.

This research is funded through two National Science Foundation grants and is collaborative with Dr. David Kristovich of the University of Illinois / Illinois State Water Survey. Students will have the chance to interact with several visiting researchers during the program. In addition, student will have the opportunity to present their research results at subsequent regional or national scientific meetings.

Eligibility
Undergraduate students (first year through senior year) working toward a degree in meteorology, atmospheric sciences, or other related degree program are encouraged to apply. Background coursework in meteorology is essential. Prior experience with meteorological data, statistical methods, and established computer skills are preferred. Applicants should have excellent oral and written communication skills and be willing to work both within a collaborative group setting and independently.

Application Procedure
Submit the completed application form (including statement of interest) and a copy of your college transcript to: Dr. Neil Laird, Department of Geoscience, Hobart & William Smith Colleges, 4002 Scandling Center, Geneva, NY 14456. The 2008 application form is available at http://people.hws.edu/laird along with information on past summer research students and their accomplishments. For additional information please contact Dr. Neil Laird (laird@hws.edu; (315) 781-3603).

Deadline
Completed application materials for these positions must be received by March 3, 2008. Applicants will be notified of decisions by March 17, 2008.
Name: _______________________________________
School Address:     Home Address:
______________________________________  ______________________________________
______________________________________  ______________________________________
______________________________________  ______________________________________
Telephone: (_____) ______________________
Email: _________________________________
Home Institution: ___________________________________________________________
Major: _____________________________________   Minor: ________________________
Expected graduation date: ______________________________ (example, May 2010)

Provide a statement of interest that includes the following items.
   1. Describe your interest in this summer research program.
   2. How would this research experience benefit your undergraduate education and career goals?
   3. List any background you have relevant to this program (science courses, research or work
experiences, conference or meeting presentations, etc.)

Check all areas of interest.
   □ Lake-effect snowstorms
   □ Great Lakes ice cover
   □ Summer lake-breeze circulations

Provide contact information for two faculty / research mentors that may be contacted to discuss their
interaction with you:

1.  Name: _____________________________________
    Job Title: _________________________________ Email: _________________________________
    Address: __________________________________ Phone: (_____) ___________________
     __________________________________________

2.  Name: _____________________________________
    Job Title: _________________________________ Email: _________________________________
    Address: __________________________________ Phone: (_____) ___________________
     __________________________________________

Send this application form (with statement of interest) and a copy of your college transcript to:
Dr. Neil Laird, Department of Geoscience, Hobart & William Smith Colleges, 4002 Scandalng Center,
Geneva, NY 14456

For more information email laird@hws.edu or call (315) 781-3603
Completed applications must be received by March 3, 2008.