

# NUCLEUS

NEWS PUBLICATION OF THE PRE-COLLEGE PROGRAM

**WELCOME** to the premier issue of Nucleus! We are excited about the first official edition of the Pre-College Program newsletter. It will be published quarterly throughout the year. If you would like to submit an item to be considered for the Nucleus just let us know. The next edition will be published in the summer.

## JUNIOR SOLAR SPRINT

The North Carolina Mathematics and Science Education Network (NC-MSEN) Pre-College Program at Western Carolina University has been accepted to participate in the 2007-08 Junior Solar Sprint (JSS) program and competition, hosted by the North Carolina Solar Center at North Carolina State University.

The Junior Solar Sprint is a middle school program that was added to the Electric Vehicle (EV) Challenge in 2000, and has grown to include numerous middle schools throughout the state of North Carolina. The Junior Solar Sprint Program challenges middle school students to build photovoltaic powered model cars that are judged on creativity, design, and speed. This is a hands-on classroom-based program for 6th, 7th and 8th graders that has students applying math, science, solar energy technology, and construction and a big dose of creativity to design and build model solar race cars. The JSS program provides each student with a standard photovoltaic panel and electric motor to build a car using these components as the sole power train. The design must also carry a 12-ounce soft drink can as cargo; but beyond that requirement, most anything goes. Model cars are judged on technical innovation, creativity



Students race solar cars at a JSS race in Raleigh, NC.

and speed.

The North Carolina Solar Center provides seed money to assist in teacher training, program start-up, solar car kits, and curriculum as well as a scheduled visit from the mobile classroom to your school site. Visit the website at <http://evchallenge.org/> to find out more about regulations, participation, and past participants in the program.

There are many strengths of the program that benefit the students, the schools, faculty, and the community. The program is a hands-on curriculum that involves a real world application of environmental and energy issues that face our world today, an important component for environmental education. The learning environment fosters a cooperative teamwork approach among students, faculty, and the community.

At the Saturday Academy on February 16th, teachers talked to students

about the event in May. Students who expressed interest in being on the team signed up and took letters home for parents to read, sign and return by February 29th. Students were chosen based on their interest and strength in the subject matter and their past participation and behavior in the Pre-College Program. Students were notified by phone during the first week of March.

The Pre-College Program is accepting donations from area businesses and individuals to help fund the trip to Raleigh. If we raise enough money we will increase the number of students on the teams and will be able to take parent chaperones. Please see our sponsorship update on the following page.



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## JUNIOR SOLAR SPRINT SPONSORSHIP

At the February 16th Saturday Academy, about 25 parents met at the first official P.I.E. Club (Parent Involved in Excellence) meeting. Thanks to all who attended this important meeting!

The main subject of the meeting was raising funds for our Junior Solar Sprint teams to attend the race in Raleigh in May. We discussed how to approach businesses to ask for funds and what kinds of goods we can accept for the trip. If you missed the meeting but you are interested in helping with this project, please call or email us at the contact information below.

We need to raise more money so that we can take more than the minimum of 10 students as well as some parents. If you have an individual who would like to donate we can accept those funds too. They can be included in publicity or they may choose to remain anonymous. Just give us a call to discuss the options.

A big THANK YOU goes out to Tammy Leatherwood (Sawyer's mom) who is working extremely hard on this project. Tammy has already contacted several businesses and individuals who are willing to help support this worthwhile program.

For more information please do not hesitate to call or email Beth or Erin:

828-227-2712

bdenmon@email.wcu.edu or emcmanus@email.wcu.edu



## PROGRAM SUPPORT

For over one year, the NC-MSEN Pre-College Program has provided services to 160 students from across western North Carolina. Throughout that time the funding for the program has been classified as "non-recurring," which means that it is not automatically re-funded by the state each year. Dr. Elaine Franklin, Director of the Center for Mathematics and Science Education, Dr. Michael Dougherty, Dean of the College of Education and Allied Professions, Beth Denmon, PCP Assistant Coordinator, and I have worked in a dedicated and determined manner over the past year to change the funding status of the program and have it included in recurring funds. A show of local support for the PCP at WCU is essential to securing the program's funding and providing continued services to the students in our region. We have met with local legislative representatives, made phone calls, written letters, and applied for grants. For now, I believe that we have done all that we can to ensure continuation of the program and so I am turning to you to help us in our efforts to secure funding for the NC-MSEN Pre-College Program at Western Carolina University. As parents or guardians of the young people that the program benefits, your advocacy for the program is critical. Below is a summary of the status of our funding, information on how you can help us receive continued funding, and contact information for western NC legislative representatives.

### **Budget Summary:**

Funding for the NC-MSEN Pre-College Program at Western Carolina University was initially established through non-recurring state funds for the 2007 fiscal year. In its first year of service, the program exceeded the expected program goal for enrollment and services by 50%. Despite this robust start, in June 2007, the NC State Legislature denied the request for future funding for the NC-MSEN Pre-College Program at Western Carolina University, as well as for the new program at East Carolina University. For the 2007-2008 school year, the NC-MSEN Pre-College Program has operated with funds received from the UNC General Administration and Western Carolina University. Funding from these institutions is only available for one year (July 2007 – June 2008), providing us time to raise legislative awareness about our program and demonstrate need in the region. In the meantime, we have requested recurring state funds for the program from the NC State Legislature. The decision about future funding of the NC-MSEN Pre-College Program will be made during the short legislative session that begins in May, 2008. If the program does not receive recurring state

funding during the next legislative budget meeting, the program will close in September 2008 and no longer able to provide services to your child.

**How You Can Help :** If you feel that the NC-MSEN Pre-College Program at Western Carolina University has a positive influence on the life and academic success of your child, we ask you to help us in gaining legislative support for the program. Please write, email, and/or call the representatives listed below and ask them to support recurring funding for the program in the 2008 budget. The following are some points that I think are important to include but please feel free to add whatever you think is necessary:

- How the NC-MSEN Pre-College Program at WCU has impacted the life of your child
- The importance of student services provided by the NC-MSEN Pre-College Program in your county
- Absence of alternative mathematics and science based college access programming available to underrepresented student populations in western North Carolina

Below is a list of the senators and representatives that we recommend you direct your letter to. However, we respect your own judgment in this matter and appreciate any efforts that you can make on behalf of the program. While we are optimistic that the PCP will receive the requested funding, we recognize that persistence is necessary. Your efforts can make a real difference to the programs future.

I am sure that many of you will have questions/concerns regarding the funding status of the program. Please feel free to contact me at [emcmanus@email.wcu.edu](mailto:emcmanus@email.wcu.edu) or call 828-227-2712. Again, thank you for any help that you can provide us in securing funding for the program.

NAME	CONTACT INFO	COUNTIES REPRESENTED
<b>Senator John Snow</b>	919.733.5875 <a href="mailto:Johnsn@ncleg.net">Johnsn@ncleg.net</a> NC Senate 16 W Jones Street, Room 2111 Raleigh, NC 27601-2808	Cherokee, Clay, Graham, Haywood, Jackson, Macon, Swain, Transylvania
<b>Senator Joe Sam Queen</b>	919.733.3460 <a href="mailto:JoeQ@ncleg.net">JoeQ@ncleg.net</a> NC Senate, 16 W Jones Street, Room 1117 Raleigh, NC 27601-2808	Avery, Haywood, Madison, McDowell, Mitchell. Yancey
<b>Representative Ray Rapp</b>	919.733.5732 <a href="mailto:Raymondr@ncleg.net">Raymondr@ncleg.net</a> NC House of Representatives 16 W Jones Street, Room 2213 Raleigh, NC 27601-2808	Haywood, Madison, Yancey
<b>Representative R. Phillip Haire</b>	919.715.3005 <a href="mailto:Philliph@ncleg.net">Philliph@ncleg.net</a> NC House of Representatives 300 N. Salisbury Street, Room 639 Raleigh, NC 27601-2808	Haywood, Jackson, Macon, Swain



## VOLUNTEERING

We need parents to help us with a few things at Summer Scholars camp on June 18-20 and June 23-27, and at the closing reception on June 28.

- \* Mentoring - help in class and keep students organized; any days or all days
- \* Donate supplies for our "extra lunch" box for students who forget to bring lunch. Items include bread, peanut butter, jelly, fruit, healthy snacks, and bottled water
- \* Make an hors de oeuvres platter for our closing reception on June 28th at 3-5pm. Items include dip, cheese and crackers, fruit or veggie tray, other finger foods, beverages (punch or juice), and paper plates and napkins.
- \* If you are a good photographer you may come on any day of Summer Scholars and take pictures using your own camera or one of our digital cameras.

Give us a call or email if you would like to sign up for any of these! We appreciate your help.

828-227-2712

bdenmon@email.wcu.edu

emcmanus@email.wcu.edu



## SPRING STAFF UPDATE

The Pre-College Program Coordinator, Erin McManus was recently selected by Rotary International to participate in a Group Study Exchange to Nigeria. In May 2008, Erin will travel with a team of four other professionals from western North Carolina to work with teachers and students in the northeast region of Nigeria.

The Rotary Group Study Exchange program provides travel grants for professionals to study the culture and vocation in other countries. The purpose of the exchange is to promote peace, cultural understanding and humanitarian service within other nations in addition to providing young community leaders with an international perspective of their vocation. Erin was selected to study education, specifically math and science education, in Nigeria. She will travel to schools throughout the region to look at how mathematics and science are taught; how students are motivated; and to talk with teachers and student about education within North Carolina, specifically within the Pre-College Program. "My hope in applying for this exchange was that I would be a tool to bring Nigerian culture and its advances in math and science education back to my students and our community..." stated Ms. McManus.

Erin leaves for Nigeria May 1<sup>st</sup>, 2008 and will be gone for the month of May. Because Beth Denmon, Assistant Coordinator will be out on maternity leave during these dates, our 7<sup>th</sup> grade science teacher, Ms. Amy Larson will step in to cover the Pre-College Program office in Beth and Erin's absence. Ms. Larson and Ms. Shannon will supervise the Junior Solar Sprint Competition and state race. If you should have any questions during the month of May, please contact Ms. Larson at the Pre-College Program office (828-227-2712). Erin will return on May 30<sup>th</sup>, just in time for our 2008 Summer Scholars program. Beth will return as well just before Summer Scholars begins in June.

## COLLEGE ADMISSIONS UPDATE

Erskine Bowles, the President of the University of NC system, recently released new admissions requirements for entrance to University of NC campuses. These requirements will be in effect fall 2009 with incremental increases through Fall 2013 and will encompass all 16 of the universities in the state.

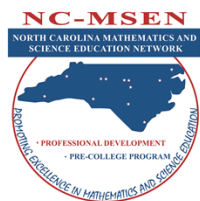
- \* 2 years of a second language and 1 math beyond Algebra II (already in effect)
- \* Minimum combined SAT score of 700 or ACT composite of 15 on math and critical reading in Fall 2009
- \* Will increase to minimum SAT score of 750 or ACT composite of 16 in Fall 2011
- \* Will increase to minimum SAT score of 800 or ACT composite of 17 in Fall 2013
- \* Minimum high school GPA of 2.0 for first time freshmen beginning in Fall 2009
- \* Minimum high school GPA will increase to 2.3 in Fall 2011 and 2.5 in Fall 2013
- \* Each campus will have an exception of 1% of these requirements for currently admitted students
- \* Students should contact the individual campus to determine the specific admission requirements for that campus

## OUR NEW WEBSITES

The Pre-College Program has a new website at [www.wcu.edu/6092.asp](http://www.wcu.edu/6092.asp). The new look is part of a campus-wide initiative to update the entire Western Carolina University website. We have lots of photos posted online so be sure to visit it and look for yourself and your Pre-College Program friends!

The Pre-College Program is housed under the Center for Mathematics and Science Education at WCU. Take a look at their new website at [www.wcu.edu/6087.asp](http://www.wcu.edu/6087.asp).





Center for Mathematics & Science Education

Pre-College Program

110 Killian Building

Cullowhee, NC 28723

## WELCOME NEW STAFF!

We are glad to have Maggie Donahue as a new communications teacher. Maggie taught 8th grade communications at our October and November Saturday Academies and will join us for Summer Scholars in June. Maggie is a counselor at Reynolds High School in Asheville.



The Pre-College Program also welcomes Liddell Shannon to our teacher team. Liddell is a science teacher who works for the Gear Up program at Cherokee Elementary School. Liddell was with us at our Saturday Academy last November and again in February. She will work with our Junior Solar Sprint team this spring and go on the trip in May.



Jess Burns works in the Pre-College Program of-  
fice as a work-study student at WCU. Jess recently began filling in as a Mentor at Saturday Academies and will join us in June as a Mentor. Jess is an elementary education major in her junior year at WCU. She is a raft guide on the Nantahala River in the summer when she is not working on campus.



## BRAIN TEASER

Here is a math trick that will stump you (or maybe not!) You probably need a calculator.

1. Key in the first three digits of your phone number (not the area code)
2. Multiply by 80
3. Add 1
4. Multiply by 250
5. Add the last 4 digits of your phone number
6. Add the last 4 digits of your phone number again
7. Subtract 250
8. Divide number by 2

Do you recognize the answer?