

2005-2006 school year brings along many new faces

BY EMMA HTUN

With the start of a new year comes new friends, new books, and new classes. This year, NCSSM also has a whole host of new instructors. This is a direct result of the new rolling contract policy that has been implemented by Dr. Boarman. Nowadays, hiring teachers at this school is a major undertaking. The school looks for credited, dedicated individuals with fresh ideas and unique methods of teaching.

Spanning all the academic departments, here are the new teachers for the year 2005-2006:

Gloria Barrett, Instructor of Mathematics (AP Statistics). B.S., Old Dominion University, M.S., College of William and Mary.



Gloria Barrett

Prior Work: Barrett taught at NCSSM from 1985 to 2004, but left last year to teach at Deerfield Academy in Massachusetts.

Why NCSSM?: "I've been working here so long that it's

kind of a home to me. And I'm not yet quite willing to give up teaching here."

Likes: the outdoors, hiking, the mountains, the beach, watching soccer, UNC basketball

Dislikes: people who drive and talk on the cell phone at the same time

Katie Fenn, Instructor of History and Social Sciences (American Studies, WECS). B.A., University of Chicago, M.A., Ph.D., Duke University.



Katie Fenn

Prior Work: Taught a variety of History courses at Duke throughout grad school and then after graduating in 2002.

Also worked in the Film/Video/Digital Program at Duke where I taught production classes (in film, video, animation) and on a research project (currently in process); the Women Film Pioneers Project, which deals with women working in the silent film era."

Why NCSSM?: "I wanted to teach at NCSSM because I heard that the kids are here are awesome, and I've found this to be absolutely true!"

Likes: documentary films, all

kinds of music (especially the Blues), swimming in rivers and the ocean, Thai, Vietnamese, Indian, and Ethiopian food, felines, and reptiles

Dislikes: white chocolate, jogging, TV, meanness, and arrogance.

Guido Gabrielli, Instructor of Chemistry (Chemistry with Advanced Topics).

B.S., Florida State University, M.S., Georgia Technical University

Previous Work: Worked in the chemical industry for 25 years after graduating (21 of those being a chemist), at 3M Company, Selanese Fibers, and Espirint International. Also taught at Enloe High in Raleigh for 5 years.



Guido Gabrielli

Why NCSSM?: "Although Enloe is a great school, I felt that NCSSM was more challenging in comparison, and I'm always up for a challenge."

Likes: soccer, espresso & cappuccino, sailing, anything web or software related. "My other passion other than chemistry is international trade, which I plan

to hold a Mini-term in." Dislikes: chicken that is juicy inside. I like it sort of dry.

Cheryl Gann, Instructor of Mathematics (AP Calculus, Pre-calculus and Modeling).

B.S., Berry College M.S., University of North Carolina at Chapel Hill



Cheryl Gann

Previous Work: Gann used to teach in the Mathematics Department at UNC.

Why NCSSM?: "I wanted to be a part of a community with other people who are interested in math and science and are excited about learning."

Likes: reading, hiking, being outdoors with my dogs, playing some video games, Chicken Philly

Dislikes: rudeness and disorganization

Mary LeMay, Instructor of Foreign Language

(Intermediate French, French with Advanced Topics in Literature).

B.A., M.A., Duke University. Previous Work: "After studying in French cities like Dijon, Paris,

Tours, and Angers, I taught for 23 years at Jordan High, and 6 years at the School of the Arts. I have just recently come out of retirement to teach here."



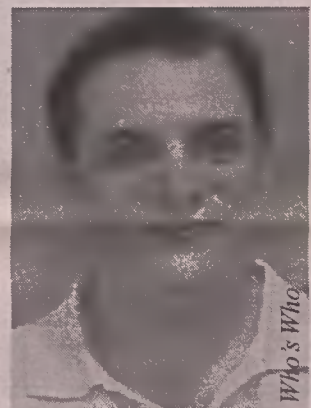
Mary LeMay

Why NCSSM?: "I enjoy teaching and often break my retirement to teach at different schools. When NCSSM asked me to come, I was glad to accept."

Likes: French food Dislikes: the computer system here

Thomas Michell, Instructor of Physical Activity and Wellness (Sports Medicine)

B.S., M.S., University of North Carolina at Chapel Hill



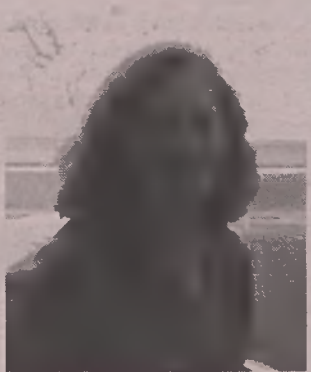
Thomas Michell

Previous Work: Taught undergraduate courses at UNC and NCCU and served as the athletic trainer for both schools. Was also an athletic trainer for Chapel Hill High and did substitute teaching.

Why NCSSM?: "The school has a wonderful reputation for academics and the opportunity to start new classes here was interesting. I started a Sports Medicine class which has been very interesting and rewarding."

Likes: spending time with family, golfing, cooking Dislikes: tardiness

Jennifer Moore, Instructor of English (American Studies).



Jennifer Moore

B.S., M.A.T., Duke University, M.A., University of Maryland. Previous Work: Taught freshman composition classes

Research Spotlight: Carter Crowl at UNC-W

BY AMY WEN

Does the idea of having your very own research project appeal to you? NCSSM has a few research classes that allow people to fit research into their busy schedules. Research classes are four trimester courses that most people start taking in second or third trimester of their junior year. Among the many options for interested juniors, Carter Crowl decided to do research in Chemistry, taught by Dr. Myra Halpin. Halpin assisted him in finding a mentor over the summer so that he could work on research.

For the entire summer, Crowl worked at UNC-Wilmington. During the back half of the two months spent there, he began to exclusively assist a new graduate student who was just starting her project. After helping her run some experiments, he realized that he could do the same thing because it was easy to do, interesting, and did not require many resources.

The basis of the project is the fact that rain is composed of various compounds, one of which is CDOM, chromophoric dissolved organic matter. Although it is known that CDOM is in rain, its composition is still unknown. The purpose of the research is to develop a meth-

od to test for CDOM, to use Nuclear Magnetic Resonance (NMR) spectroscopy to figure out its components, and to use the results to determine how much CDOM is in rain.

This is just the beginning of an even larger project. Since it is in rain, CDOM must also be



Carter Crowl collects data on his project.

in the clouds to begin with. CDOM has the property of fluorescence. That means that it might play a role in the absorption of sunlight. If there is a lot more CDOM in the clouds, then not as much sunlight will get through. The plan is to take this project to a global scale and get rain samples from all over the world to compare the amount of CDOM found to the amount of sunlight in the area. Another feature of this larger project is to determine whether different weather conditions, such as

light rain versus a raging storm, also play a role in the amount of between CDOM levels in the coastal rain in Wilmington and the urban terrestrial setting of Durham.

As is the case for most research, there are some obstacles preventing Crowl from getting a smooth start to his project. He does not have any rain samples to analyze yet, but he hopes to obtain them from a pair of researchers at Duke Forest. If he is unable to draw off the collection of the researchers, then he will

have to collect the rain sample on campus. The ideal place on campus for collecting the rain is the roof of one of the new buildings, but even then, there is potential for many errors. The rain is collected on an event-to-event basis, which means that every period in which it rains and then stops raining are considered events. If Crowl has to collect rain samples at school, he will have to manually uncover and cover the collector for every event, which is problematic. UNC-Wilmington

has automated rain collectors, which only opens when it rains and closes when the rain stops.

When Crowl finds a source of rain samples, he will take the samples back to UNC-Wilmington every month or so in order to use their 3D fluorometer. The only thing he is able to do here at NCSSM is extraction. Extraction consists of many steps. First, the rain samples are filtered through a .2 micrometer filter to get rid of dust and bugs. The result is the "before" sample. Next, the rain is filtered again, except this time through a cartridge called a sept-pack that is designed to remove organic carbons from liquids in order to produce the "after" sample. Acetonitrile, a non-polar solvent, is then forced through the sept-pack in order to pull the collected organic carbons off. The eluted material is then reconstituted to the original volume, forming the "reconstituted" sample. After this extraction process, Crowl can then run scans using the 3D fluorometer, which will indicate what dissolved organic carbon compounds are found in the samples of rain and the values of each. An additional process is needed before the samples can be scanned using an NMR, but a standard procedure has not been developed.