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# NEWS BYTES

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## New Department Chair Appointed

**Jo Ann Seiple**, dean, College of Arts and Sciences, recently announced the appointment of **Professor Ronald J. Vetter**, UNCW Department of Computer Science, as chair of the department effective July 1, 2000. Retiring chair **Dr. Barbara Ann Greim** said that "Dr. Vetter has all the skills and enthusiasm to be a really great department chair." Student reaction to the announcement was equally favorable.

Dr. Vetter received his Ph.D. in computer science from the University of Minnesota in 1992. He has held full-time faculty positions at both Moorhead State University and North Dakota State University in addition to UNCW. Since the computer science separated from the Department of Mathematics & Statistics in 1998, Dr. Vetter has been the assistant chair. His



duties have included responsibility for the department Web-site and for all computer equipment in the department.

Dr. Vetter is a respected and popular teacher. Last year, nearly half of the computer science graduates ranked him as the single UNCW employee who had the most significant impact on them during their

time at the university. He started and continues to supervise the departmental internship program. He has developed several new courses and was the first UNCW faculty member to teach an on-line course.

Dr. Vetter is a recognized expert in computer networks and technology-based education. He has been appointed as a distinguished lecturer by the Association for Computing Machinery and is a Senior Member of the Institute for Electronics and Electrical Engineering. In addition to publishing over 60 articles since receiving his doctorate, he edits the monthly "Internet Watch" column in the IEEE *Computer* magazine and gives many presentations each year to both professional and community groups.

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## New Courses

Now that the department has a student laboratory equipped with proper computer tables and comfortable chairs, a new senior level course in network programming has been added to the curriculum. Some computers in the lab are dedicated solely for use by students in network programming. These students must install a hard drive and the LINUX operating system into their computers. Students then connect their computers in various network configurations and study performance differences. The



*newly refurbished CSC upper level student lab in a rare quiet moment*

students must also defend their computer against hacking attacks from the other student computers in the course. The was offered for the first time this spring, when it proved to be extremely popular.

Two other new courses have been offered before under the topics in computer science course title: artificial intelligence and networked multimedia. Both will have their own course numbers and descriptions.



## From the Chair: Farewell

Barbara Ann Greim, Ph.D.

No UNCW department required any computer science courses when I joined the faculty in 1969. The instructional computing equipment available to students on campus consisted of one keypunch machine (no computers). The only computing course available was one section of introductory programming in FORTRAN offered each term by the Department of Mathematics & Statistics. Students in that course left their punched cards on a table in the Department of Physics. A student worker would then drive the cards to the nearest available card reader in downtown Wilmington and bring back the printed results of running the student programs twice a day. With a maximum of 10 opportunities per week to compile their programs, students were forced to become proficient at code walk-throughs and hand tracing.

When I took responsibility for teaching that course, I could not have imagined the changes over the next 31 years. FORTRAN was replaced first by PL/1, then Pascal, then C, and now JAVA. The single keypunch machine grew into a room full of keypunch machines with its own card reader and printer, which were replaced by labs throughout campus with PC's and now laptops and Ethernet connections as interactive computing replaced batch mode. Teaching with just a chalkboard has been supplemented with computer projection units in all computer science classrooms, and to technology classrooms where every student sits at a computer.

The computer science program



Dr. Greim with  
1999 Computer Science Chair's  
Scholarship winner Paul DeLano, '00

developed into a major within the Department of Mathemats & Statistics and then into an independent department. This past fall over 900 students were enrolled in 43 sections of computer science courses at UNCW; almost all sections made some use of the internet. This department alone had about 100 computers, 3 scanners, 18 printers, 3

multimedia projectors – and no keypunches! Many administrators, faculty, and staff have invested an incredible amount of work to develop this program. The enthusiasm of the students provided the energy and motivation for that effort as well as some of my best memories.

Now the time has come for me to retire. I will be leaving UNCW on June 30, 2000 after 31 years. I will miss my colleagues and students, but at the same time I am eagerly anticipating additional time to spend on projects which I have been delaying. I feel confident that I am leaving a healthy department in very good hands. I hope that all our alumni and friends will support our new chair as you have supported me. Certainly Dr. Vetter will provide energetic leadership as the department pursues development of a graduate program and continued excellence in undergraduate teaching. He will face continued enrollment pressures, strong national competition for outstanding faculty, and space limitations. Your gifts and interest will always mean a lot to the department chair and to everyone in the department.

### To Contact the Department

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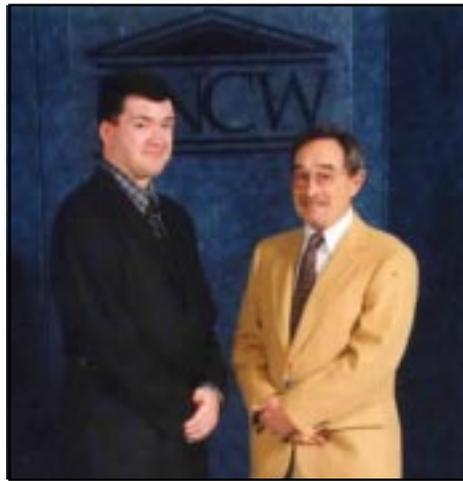
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## Norris Scholarship

Last fall, **Professor Emeritus Fletcher R. Norris** established the *Fletcher R. Norris Scholarship in Computer Science*. At the same time he began an endowment for the scholarship with an initial gift of \$5,000 and the promise to match the next \$5,000 donated towards the \$25,000 minimum funding needed for the endowment. CSC alumnus **James Kitchen ("Kit") Cosper**, '95, has also promised to match the next \$5,000 donated.

Matches like these make a big difference in the impact of a contribution. For example, a donor who works for a company with a double matching corporate gift program could give \$100, which the company would match with \$200.



Dr. Norris with  
1999 *Fletcher R. Norris Scholarship in  
Computer Science* winner,  
Henry Arthur Ray, '99

The \$300 would be separately  
matched by Dr. Norris and Mr.

Cosper resulting in a total donation to the scholarship of \$900. Even those who don't work for matching gift companies will see the value of their gifts tripled by these matches.

As of early April, approximately \$1,000 has been given toward the endowment of the *Fletcher R. Norris Scholarship in Computer Science* by alumni, friends and faculty. Counting Dr. Norris' original gift and the matching gifts, we have about \$8,000 towards our \$25,000 goal.

Please help us reach our goal by sending a gift to UNCW for the *Fletcher R. Norris Scholarship in Computer Science*. See the inside back page for details on how to make your gift.

## Scholarship Winners

The department honored four seniors with academic scholarships at its student awards ceremony on April 26<sup>th</sup>, 2000. Those receiving *UNCW Bookstore Scholarships* were **Patrick Scott Smith**, '01 and **Anissa Kunz Williams**, '00. In addition, the *Fletcher R. Norris Scholarship in Computer Science* was awarded to **James Richard Clavin**, '00. The *Computer Science Chair's Scholarship* winner was **Lawrence Paul Wans**, '00.

Scholarship winners are selected by vote of the entire departmental faculty from among the returning students with the highest grade point averages.



Left to Right: Anissa Kunz Williams, Lawrence Paul Wans,  
Patrick Scott Smith, and James Richard Clavin.

## Alumnus: J. Kitchen (“Kit”) Cosper, ’95



Wilmington native Kit Cosper became the sixth employee of Red Hat Software in Raleigh, N.C. after receiving his B.S. in computer science (systems option) in 1995. At Red Hat, Kit maintained the Red Hat Linux User’s Guide and was director of World-Wide Technical Support.

In November 1996, Kit returned to Wilmington where he founded Linux Hardware Solutions which developed into a leading Linux systems provider. In April 1999 Linux Hardware Solutions merged with VA Research in Sunnyvale, CA to form VA Linux Systems

(www.valinux.com). In addition to his work with VA Linux, Kit is a member of the board of directors of Linux International and serves on the advisory council of the Linux Professionals Institute.

Kit, his wife Lourie (UNCW ’91), and their 3 children live in Saratoga, CA where Kit enjoys diving, fishing, and golf when he is not focussed on Linux. Kit also remains an avid fan and supporter of the UNCW Seahawk basketball team and a much appreciated contributor to the Department of Computer Science.

Do you know a UNCW Computer Science graduate you would like to see featured in this column? Send suggestions to [vettterr@uncwil.edu](mailto:vettterr@uncwil.edu) with as much information as you have.

## CSC Talks at UNCW

Visiting scientists gave 11 different talks during February, March, and April. The department sponsored ACM distinguished lecturer **Dennis J. Frailey**, senior fellow at Raytheon Corporation, who spoke on “Distance Learning: Brave New World or Recipe for Disaster?”

The department co-sponsored a series of 4 talks by Professor **Curt Lindner** from Auburn University who spoke on “Everything You always Wanted to Know About Hamming Codes,” “What is Public Key Cryptography?,” “A New Construction for Block Designs with block Size Four,” and “The Metamorphosis of Block Designs with Block Size Four into Subgraphs of  $K_4$ .”

Professor **Ned H. Martin** of the UNCW Department of Chemistry gave a talk titled “Predicting NMR

Deshielding by Alkenes” emphasizing the use of computer graphics and mathematical data analysis in chemistry research.

The Information Technology Systems Division sponsored Mr. **Steven Thorpe**, visualization specialist from the N.C. Supercomputing Center, who spoke on “Scientific Data Visualization Overview and Demonstrations”.

Other talks sponsored by the department were titled: “Empirical Approaches to Application Modeling”, “Next Generation Software: An Agent Based Approach”, “Specification Based Testing of Concurrent Programs”, and “Habitat, Communication, and Cooperative Strategies”

## Welcome New Faculty



Wilmington native **Jack A. Tompkins, Jr.** joined the full-time faculty of the department in January 2000. Mr. Tompkins’ first career was as a member of the U.S. Navy. After retiring in 1994, he earned his master’s degree at UNCW in applied mathematics.

Mr. Tompkins’ specialty areas are electronics and mathematical computer science. He has taught part-time for the department since 1998. Mr. Tompkins’ extensive military and civilian teaching experience will be put to good use next semester when he assists in developing a new format for the introductory programming course for computer science majors.

## Honor Society Induction

The North Carolina Beta Chapter of Upsilon Pi Epsilon, the national honorary society for computer science, inducted faculty member **Dr. Gene A. Tagliarini** and 30 UNCW computer science students at its 22<sup>nd</sup> induction ceremony April 12, 2000:

Louis Leonard Aiello, Dale John Berkey  
James Ried Bowen, James Richard Clavin  
Jeffrey David Clift, Alexander Robert Cougarman  
Luca Di Filippo, William Wing Fan  
Elizabeth Ann Garbowski, Daniel Keith Henry  
Robert Alan Kluever, Robert Shawn Knowles  
Robert Dwain Locklear, John Darby Mitchell  
Clinton David Morris, Jason Wade Oliver  
Matthew Stephen Ratliff, Stephanie Moore Reyes



Patrick Scott Smith, John Mattison Spann, III  
Michael Alan Townsend, Richard Ryan Truxillo  
Shauna Gray Turner, Lawrence Paul Wans  
Amy Cordelia Whitfield, Anissa Elizabeth Kunz Williams  
Jane Abbey Lynch Williamson, William Scott Wood  
Michael Bryan Woody, Riichi Yamamoto

UNCW's Upsilon Pi Epsilon chapter is one of only five in North Carolina.

## Faculty Publications and Presentations

**Dr. Ronald J. Vetter** gave two invited plenary talks at the International Symposium on Computer Science and Computer Engineering at the Instituto Tecnológico de La Laguna in Torreon, Coahuila Mexico.

**Dr. Sridhar Narayan** presented an invited workshop on "Object-Oriented Programming and JAVA" at the University of North Carolina Financial Reporting System Users Conference attended by representatives from the UNC system and from the NC State Offices of Personnel, Auditors, and Controllers.

**Dr. Ronald J. Vetter** presented a talk on "Agent-based Network Management Using Active Network Components" as part of a National Science Foundation workshop on networks and quality. He also was an invited participant in several panel and small group sessions designed to

develop an agenda for future NSF research areas.

**Dr. Gur S. Adhar's** paper "Domination in bounded Interval Tolerance Graphs" has been accepted for presentation at the International Conference on Parallel and Distributed Systems in July 2000 and will appear in the conference proceedings.

**Dr. Ronald J. Vetter's** paper "A Collaborative Approach for Creating Curriculum and Instructional Materials" co-authored with Drs. R. Stammen and S. Sologuk of the North Dakota State University School of Education has been accepted for publication in the *Journal of Technology and Teacher Education*.

**Dr. Gene A. Tagliarini's** paper "Application of Wavelet and Neural Processing to Automatic Target Recognition" co-authored with E. W.

Page, G.M. Kesden, D. Chiang, and P.J. McPartland has been chosen for including in *Selected SPIE Papers on CD-ROM Volume 6: Automatic Target Recognition*. The paper originally appeared in *Proceedings of the Society of Photo-Optical Instrumentation Engineers* in April 1997.

### Let Us Hear From You!

You are an important part of the Department of Computer Science. Let us know what you are doing, what you think of this newsletter, how we might help you or what you would like to do with us.

Contact us at 910.962.7182 or at [vetterr@uncwil.edu](mailto:vetterr@uncwil.edu). We hope to hear from you soon!

## Seven Grants Awarded

When Hurricane Floyd threatened eastern North Carolina last fall, many of those who evacuated to the central and western parts of the state had difficulty returning to Wilmington because so many roads and bridges were closed. The North Carolina State Highway Department's Web site listed closed roads by county and by state road number. However, evacuees wanted to know how to get from where they were to Wilmington.

This experience led **Drs. Sridhar Narayan** and **Gene A. Tagliarini** to initiate a research project titled "Web-based Travel Route Planning Subject to Transient Road Conditions." If successful, this project will provide a Web-site which will find a route avoiding closed roads between any 2 locations in North Carolina. So far, Drs. Narayan and Tagliarini have

received both a Charles L. Cahill Faculty Research Award and a UNCW Information Technology Innovation grant to support this research. Computer science majors **Sonya J. Pettit**, **W. Allen Randall**, and **Paul DeLano** are assisting with this project.

**Dr. David R. Berman** has received a High Performance Computing grant to support his research in combinatorics using the North Carolina Supercomputing Center. Computer science major **Sauna G. Turner** is assisting Dr. Berman with his high performance computing research.

**Dr. Clayton S. Ferner** was awarded UNCW Summer Research Initiative funding for his research in Parallelizing Compilers. Dr. Ferner's proposal was ranked among the top

10 proposals submitted. Computer science major **W. Allen Randall** is assisting Dr. Ferner with this research.

**Dr. David R. Berman** was awarded UNCW Summer Curriculum Initiative funding to redesign CSC 121 into a large lecture/small lab format.

**Dr. Ronald J. Vetter** is a co-principal investigator for "A Digital Library of Reusable Science and Math Resources for Undergraduate Education", a project which was funded by the National Science Foundation's Digital Libraries Initiative.

The department received funding from the **Friends of UNCW** for a networked color printer for student use.

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## New Graduate: Kelli F. Davis, '00



Goldboro, N.C. native **Kelli Futrell Davis, '00** fell in love with computer programming when she studied Pascal in high school. Kelli

transferred to UNCW to begin her junior year after two years in the NC State University College of Engineering during which she worked as a computer consultant at NCSU and as a technical support representative for an Internet service provider.

Kelli has been on the Dean's List every semester and has been a volunteer peer tutor in upper level computer science courses. She completed an internship for credit at C-Phone in Wilmington. She has been employed by the National Undersea Research Center at the UNCW Center for Marine Science for a year

as the Webmaster for *Aquarius*, the underwater lab featured on the syndicated television show *National Geographic Explorers*. Kelli was inducted into the national computer science honorary society, Upsilon Pi Epsilon, last spring. She was an officer of UNCW's N.C. Beta chapter this year.

Kelli credits the department with making her transfer "flawless and easy." She and her husband **Matt** plan to continue living and working in Wilmington after Kelli's graduation.



# Patent Applied For



Left to Right:  
Paul DeLano, Michael  
Bryan Woody, Robert Shawn  
Knowles, and Laurence  
William Thaete

UNCW computer science majors have long bragged that they "do real work." Seniors **Paul DeLano, Robert Shawn Knowles, Laurence William Thaete, and Michael Bryan Woody** can also boast of real recognition.

For their required term project in

CSC 453, Object Oriented Analysis and Design, the group worked on a visualization problem for a Wilmington industrial plant. The company's engineers were studying how a product degenerated over time by analyzing pages of charts listing measurements at various places in the

product. The four students developed a JAVA program to display the data as two-dimensional or three-dimensional pictures of the product, color-coded to reflect the experimental data at each point.

The group successfully demonstrated their project in December 1999. The company has applied for a patent on the visualization software listing the students as developers. It has hired the group to continue developing their work. The company reports that the software has been well received by its customers.

*Alumni & Friends:*

Name: \_\_\_\_\_  
Dr./Mrs./Miss/Ms.      First      Middle      Maiden      Last      Suffix

Address: \_\_\_\_\_  
Street/PO Box      City      State      ZIP+4

Address: \_\_\_\_\_

Graduation date: \_\_\_\_\_ Degree/Major: \_\_\_\_\_ Spouse UNCW Graduate? Yes/No

Employer: \_\_\_\_\_ Position \_\_\_\_\_ Matching Gift Company? Yes/No

Spouse: \_\_\_\_\_  
Dr./Mrs./Miss/Ms.      First      Middle      Maiden      Last      Suffix

Spouse's Employer: \_\_\_\_\_ Position \_\_\_\_\_ Matching Gift Company? Yes/No

Enclosed is my gift of \$ \_\_\_\_\_ for the Computer Science Dept Trust Fund  
 \$ \_\_\_\_\_ for the Fletcher Norris Endowed Scholarship Fund **Please make checks payable to: UNCW**

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Signature: \_\_\_\_\_ Matched by my or my spouse's employer? Yes \_\_\_ No \_\_\_

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Department of Computer Science Newsletter  
Spring 2000

*Feature Stories:*

Chair Retires...

Welcome to the New Chair

Featuring a 1995 Alumnus

Faculty Presentations and Publications

Upsilon Pi Epsilon

Featuring a 2000 Graduate

Real World Success - A Patent

Scholarships

Seven Grants Awarded

and more...

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