Professor O. Roger Anderson, MST Department Chair

Professor Anderson, a 42-year TC veteran, was appointed as the Math, Science, and Technology (MST) Department Chair in 2000. From his first appointment to the present, he has worked both at TC, in the Science Program, and in the Biology Department of Columbia University’s Lamont-Doherty Observatory. His vision for the department is to both increase the diversity of faculty both racially and culturally and establish a firm and coherent set of relationships across programs and among faculty. The Department continues to aim at remaining one of the world’s leading departments in addressing educational reform through enhanced opportunities for education in the dynamic fields of mathematics, science and technology. These fields are increasingly the foundations of modern society, and all people deserve an opportunity to realize their fullest potential in mathematical, scientific, and technological thinking. One of our major aims is to realize this fulfillment through education for all people and across the lifespan.

Professor Anderson’s research in science education has largely focused on communication and organization of science knowledge drawn from learning theory and neurocognitive sciences. His most recent work has focused on organizational aspects including how networking, knowledge, and memory, influence high order thinking and knowledge acquisition in secondary school science classrooms.

Anderson has previously been president of organizations such as the National Association for Research in Science Teaching, the Kappa Chapter of Columbia University’s Sigma XI Honorary Society, and the International Society of Protistologists. In recognition for his work, a newly discovered species of diatom was named in honor of him by Reimer and Lee. The species is called Cocconeis Andersonii.

Currently, in addition to his duties of Department Chair, Professor Anderson teaches Biochemistry and Cell Biology.

To find out more information about Professor O. Roger Anderson, please visit: http://www.tc.columbia.edu/faculty/?facid=ora1.

Three CCTE Students Win Top Prize

Three Communication, Computing, and Technology in Education (CCTE) students participated in the Mobile Game Mosh, a prestigious computer/mobile game design competition, that was held on March 11th and March 12th in New York’s Parsons School of Design.

Their win has received national attention in the video game community and in mainstream national publications such as Business Week Magazine. This publication mentions Teachers College by name, though not the students’ names. It was also publicized by MTV News and at the Game Developers Conference/Serious Games Summit that was held in San Jose. The MTV article (http://www.mtv.com/news/articles/1526118/20060314/index.html?headlines=true) acknowledges Jessica Hammer as the winning team’s leader, one of the three team members. The other Teachers College team members included Lance Vikaros and Dan Hoffman.

The event included participation from Alari and sponsorship by Adobe and other major technology and game business leaders.
Mathematics Program Welcomes Visiting Scholar

Richardo Pulido, a Mellon Foundation Visiting Scholar in our Mathematics Program this semester, hails from Mexico. A graduate from El Centro Investigacion Estudios Avanzados in Monterrey, Mexico, Dr. Pulido has research interests in calculus and how it can be taught successfully to students.

In Mexico, Dr. Pulido and a team developed a new approach to the problems that teachers encounter when teaching calculus. His group focused on questions such as “Why aren’t the current ways of teaching calculus working?” and “What are the problems with teaching and learning calculus?” Dr. Pulido believes “current textbooks don’t have important tools that are needed to understand calculus. Recovering these tools by looking into the history of calculus is needed.”

He is currently teaching a course at TC entitled, “A New Approach To Teaching and Learning Calculus.” Dr. Pulido, also assisted in the Study Tour to Mexico (which included visiting Mexico City, Guadalajara, and Monterrey). The purpose of the trip was to expose the participants to a mixture of education and culture. Students visited various Mexican schools from elementary to the collegiate level.

Dr. Pulido is also a co-author of, Elements of Calculus: Conceptual Reconstruction For Learning and Teaching.

Farewell to Professor Calabrese-Barton

Professor Calabrese-Barton has accepted a faculty position in the Department of Teacher Education at Michigan State University (MSU) and will be leaving Teachers College in August 2006. Scott Barton, her husband, has also been appointed as a faculty member in Engineering at MSU.

Professor Calabrese Barton has made substantial contributions to the academic life of the Science Education Program at the College. She established and directed the Center for Urban Science Education at Teachers College, and through her innovative and energetic fundraising efforts, helped to maintain the Center through external grants and contributions that supported a vigorous program of research and outreach in New York City schools.

Many graduate students benefited as participants in the Center, receiving scholarships and support during their advanced graduate studies in the Science Education Program. The Center has also provided a place for the celebration of professional and intellectual life in science education and contributed substantially to the renewal of a sense of community among the participating students and faculty.

Additionally, Professor Calabrese Barton has been a leader in science teacher education and helped to reinvigorate our teacher education program. She has significantly expanded course offerings relevant to urban science education including courses on multicultural science education, science technology and society, and other issues related to urban science education. She served as Coordinator of the Science Education Program for several years and led the Science Education faculty in making improvements in the breadth and coherence of course offerings within the program.

Her dedication to the improvement of urban education broadly, and more specifically in science education, has been an inspiration to many of us, including faculty outside of our department with whom she collaborated on important interdisciplinary research projects in the New York City schools. We will miss her as a colleague and mentor of our students, and more particularly as a highly dedicated faculty member of the Department of Mathematics, Science and Technology.

We wish Angela and her family much happiness and continued professional growth and accomplishments at Michigan State University. I am confident that we will remain keenly aware of her contributions as she continues to be a prolific researcher and publisher in science education.

Fast Fact:

In 1898 Teachers College became affiliated with Columbia University as a professional school for the training of teachers while retaining its legal and financial independence.
Heather Huntington, MST Senate Representative

Heather Huntington is currently completing her Master of Arts (MA) in our department, helping Mathematics Education at develop close relationships with Teachers College. As the S T U D E N T S E N A T E Representative, it is her goal to voice the concerns of the students in Mathematics, Science, and create events that foster educational collaboration and networking.

Heather Huntington

Ruth Kentor, a biology teacher at the Solomon Schechter High School of NY, was the 2005 recipient of the “Outstanding Biology Teacher Award.” Each year the National Association of Biology Teachers (NABT) presents one teacher from each state with this prestigious award. Ruth received the award on November 30th from Alan Ascher at the New York Biology Teachers Association November meeting.

Ruth, a student in the EdD program in Secondary Science Education began at TC this past fall. She is going on her fourth year teaching at her high school. Along with her teaching responsibilities, Ruth holds the position of the school’s head advisor and community service coordinator.

Ruth Kentor

Pre-Service Program in Technology Teaching

Did you know that CCTE has a program for obtaining technology teaching certification? A couple of years ago New York State designed a new initial teaching license called “Technology Specialist K-12.” Teachers College was one of the first in New York state to get approval to offer a pre-service program leading to this license. Presently there are eight active pre-service students, three of whom are currently student teaching in area elementary schools.

The program involves taking a mostly prescribed set of courses— in and out of our department— to satisfy the demands of New York State and national standards. Our national organization—the International Society for Technology in Education (ISTE)—has elaborated a set of standards about what technology teachers should know and do. These involve technical knowledge, a grounding in ethical and equity issues, and the use of technology as a tool to promote problem solving, communication, research, and productivity, and we emphasize these aspects of technology in our courses and fieldwork. We expect the program to grow in the coming years, as we see what the job market for our graduates provides.
MST Faculty and Student Presentations at Recent Conferences

American Educational Research Association (AERA)
San Francisco, California
April 7 - 11, 2006

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<td>John Black</td>
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<td>Dana Cammack</td>
<td>Melina Furman</td>
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<td>Chuck Kinzer</td>
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<td>Peiyi Lin</td>
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National Association for Research in Science Teaching (NARST)
San Francisco, California
April 3 - 6, 2006

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<td>Angela Calabrese-Barton</td>
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Dr. J. Philip Smith Named Department Distinguished Alumnus

Dr. J. Philip Smith, a current visiting professor in the mathematics program, has been named the Department’s 2006 ’Distinguished Alumnus’ Award recipient. He is a renowned college educator and administrator and is highly regarded as an exemplary teacher of mathematics. He has worked with many doctoral students and his “Problem Solving” course is one of our most popular offerings. His contributions to the Program and our Department have been unparalleled. Dr. Smith will be presented with the award at the Department’s upcoming graduation ceremony.

Professor Vogeli Invited to Write Book

Professor Bruce R. Vogeli, has been invited to serve as a senior author for the new Houghton Mifflin Mathematics Series for grades K - 7. The new series will appear in the Fall of 2007 with a 2008 copyright.

Dr. Vogeli has been the senior or co-author of nine textbook series published by Silver Burdett, Scott Foresman, Pearson Publishing and Houghton Mifflin since 1960.

Science Ed. Student Collects Award

Stephen Wefer, a doctoral student in Science Education, has been awarded a $10,000 Toyota Tapestry grant award for his project “Achieving Scientific Literacy through Bioinformatics: Student Exploration of the Avian Flu Using Online Biological Databases”.

Stephen will be receiving his award at the upcoming NSTA conference in Anaheim, California in April.

Science/Mathematics Departments Work Together To Produce Handbook

The Math and Science department recently participated in The Science Professional Development Handbook Project. This project produced a series of seven science education handbooks published by Houghton Mifflin, one for each grade level from kindergarten through grade six. The handbooks contained a total of forty-two research-based articles written for elementary and middle school science teachers. The articles provide an overview to a variety of science topics along with a review of the relevant research and practical ‘best practices’ advice for teachers. All of the articles were written by students in the science and mathematics education programs. The handbooks were co-edited by Professors Sheppard, Rivet and Moore and the project was coordinated by Professors Vogeli and Sheppard. Student authors include science education students Dana Liebowitz, Chiara Brandoni, William Soliman, Jannine Galgano, Megan Groome, Edna Tan, Melina Furman, Jessica Riccio and Angela Kelly along with mathematics students YoungMee Oh, Rita Plotkin, Michael George, Michael Kent and Athanassia Boussios.
Recent MST Faculty Publications

**Communication, Computing, and Technology in Education (CCTE)**

*Lalitha Vasudevan:*

Vasudevan, L.M. (In press). Looking for Angels: Knowing adolescents by engaging with their multimodal literacy practices. Journal of Adolescent and Adult Literacy


*Charles Kinzer:*


**Mathematics Education**

*Erika Walker:*


**Science Education**

*Felicia Moore:*


Moore, F.M. (2005). The dissertation and graduation: Not just a black and white process-Mountain climbing, middle passage, and learning as a postdoctoral fellow. ERIC Digest, ED489985

*Keith Sheppard:*


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**Fast Fact:**

The 2006 Commencement Ceremony marks the 100th year of the Ph.D being awarded in Mathematics Education at Teachers College. The Math Program at Teachers College was the first in the world to issue such a degree.

**Did you know?**

In 1904 John Dewey, influential proponent of the progressive education movement, joined the TC faculty.
Math, Science, and Technology
525 W. 120th Street, Box 019
New York, New York 10027

Phone: 212-678-3405
Fax: 212-678-8129
Email: tcmst@tc.edu

The Initiatives That Define Teachers College

Teachers College is best personified by what it is and what it does. What it is—an activist institution, a comprehensive graduate and professional school of education, primarily embracing the disciplines of psychology, health and education. What it does is give expression to its priority fields of interest with voices that speak to such initiatives as education issues, policy and scholarship/research, scholars and scholarships, lectures and BookTalks, conferences and panels, and campus activities.

-TC Website

Newton Website

The MST Department is proud to have launched new Department and Program websites. In it, you can find Degree information, faculty profiles, and other exciting projects occurring in our Department.

Visit the new site at http://www.tc.edu/mst.

Newsletter Submissions

The Mathematics, Science, and Technology Department is looking for submissions for its next Department Newsletter. Some items that may be included in the Newsletter are the following:
- Adjunct Spotlights / Accomplishments
- Upcoming Program Events / Announcements
- Student Spotlights / Accomplishments
- Alum Spotlights / Accomplishments

This Newsletter can only be successful with your help! If you have any submissions, please submit them to Kenny Nienhusser at nienhusser@tc.edu.

Important Upcoming Dates

April
17 - Registration for summer term for continuing students via web and touchtone begins
24 - Last day to hold dissertation defense (Ed.D/Ph.D) for May 17 award of degree
28 - Last day to deposit Ed.D dissertation and abstracts, which have been corrected in accordance with Dissertation Secretary's evaluation, and pay microfilm fee for May 17 award of degree

May
9 - End of Spring Term
10 - Termination of occupancy in residence halls for Spring Term 2006 for students not remaining for Summer Session A.
12 - Last day to deposit Ph.D. dissertation with the Office of Doctoral Studies and the Graduate School of Arts and Sciences for the award of the May degree.
16 - Teachers College Master's degrees Convocations.
17 - Conferring of degrees, 10:30 a.m.; Teachers College Doctoral degrees Convocation, 2:30 p.m.
29 - Memorial Day. University Holiday

Mathematics, Science, & Technology Department and Human Development Department

Mixer at The West End

When: Every Wednesday from 9pm to 11pm in the back room
What can I do there: Eat their yummy food, drink non-alcoholic or alcoholic drinks, and play beer pong
Location information: 2911 Broadway (between 113th & 114th St.)