



# Vinculum

## A newsletter of the College of Integrated Science & Technology

Volume 4, Issue 1

**Collaboration**

**Integration**

**Support**

**Achievement**

**Teaching**

*These are the goals and values that CISAT strives to espouse.*

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*Vinculum*, meaning a bond or tie, is derived from the Latin *vincire*. This represents the many connections among our programs, faculty, and students.

### Commonwealth of Opportunity

A. Jerry Benson, Dean of CISAT

Fall 2004

Too often when we talk about or try to go about thinking about tomorrow's world and the future, we focus literally on tomorrow – what projects, reports, classes, etc. have to get done. This immediacy overrides opportunities to really think about tomorrow and where we are headed.

I have had the opportunity over the past month to hear the honorable Senator Chichester address the JMU opening faculty meeting and Governor Warner open the Commonwealth of Virginia Information Technology Symposium. Both of these addresses caused me to reflect on our College, our programs and our future.

It seems that we are at an interesting point of confluence involving the expertise of our College, needs of society, and, thus, opportunities for our students, graduates and faculty. Senator Chichester outlined four areas of focus for the state in the near future: transportation; health services and life sciences; education; and safety/security. Clearly, these are areas that cut across the programs and expertise of our College. Governor Warner, too, talked about the contributions of higher education to addressing the challenges and opportunities of the Commonwealth – a need for the effective application of technology in bringing about

improvements for the citizens of the Commonwealth, a need for creative problem solving, and a need for strategic alliances and partnerships between the public and private sectors.

This is CISAT. Across all our programs runs a theme of the integration of a sound academic base of content; a good dose of the social realities, structures, policies and procedures in which we live and our interventions or actions must be played out; the appropriate use of technology as a tool in problem solving; and a focus on reduction to practice or application to the real world. What is truly unique about CISAT is that this theme plays out through departments, programs, faculty and students that readily cut across traditional bounds and collaborate in addressing such challenges and opportunities.

We are concerned about and have research and studies actively addressing transportation issues that include planning for the safety and security of the citizenry, the intersect of emergency responders and secondary health care with the transportation issues, and issues of the environment by looking at alternative fuel sources. We look holistically at health care and human services for the expanding elderly population including direct medical care, transitional care, case management and support systems, preventive care and

general lifestyle. What motivates the elderly to stay active and fit and what impact does this have on their physical and mental well-being. Falling is the number one health issue for the elderly. We have the researchers, clinicians and facilities to assess the vestibular (balance) system, assess gait, assess general strength and endurance, and plan/assist in rehabilitation after a fall. We also are working hand in hand with our colleagues in the College of Education in preparing future physical and health education teachers and providing creative programs integrating pedagogy and science/math/technology education. These are but three examples of a myriad of projects, research and curriculum that you have developed to address the future and best prepare our students for that future.

The great ideas and your dedication have always been there. Now, perhaps we are at a point where the commitment of the University and the Board of Visitors to resourcing the level of excellence sought by our faculty, the commitment of the legislature to supporting higher education as an essential resource for growth and prosperity in the Commonwealth, and an improving economy will allow this creativity to flourish and support us in making our mark on the Commonwealth and the nation.

## **Grants Awarded and Renewed from April 2004 – Present**

### **CSD**

Auditory Memory in Williams Syndrome: *Jeffrey Marler*  
 FLOSP 2004 & Scottish Rite Language Clinic/Audio Visual Equipment: *Vicki Reed*  
 Hair Cell Regeneration & Enhancing Hearing Health: *Brenda Ryals*  
 Autism Specialty Clinic 2004 & Student Sampler for Sign-to-Voice Interpreting: *Brenda Seal*

### **Computer Science**

National Security Paradigm Workshop: *Mohammed Heydari*  
 Internet Security Without PKI: *Xunhua (Steve) Wang*

### **Graduate Psychology**

Psychology Internship Agreement: *Tammy Gilligan*

### **Institute for Innovation in Health & Human Services**

Office on Children and Youth FY04, Community Resource Center & Youth Survey  
 for Amherst County: *Jane Hubbell*  
 Technology Internship, External Evaluation Services & IHHHS Proposal: *Vida Huber*  
 Rural Health Outreach, VA Center for Health Outreach VCHO, Cancer Work Outreach, Cancer Public Educa-  
 tion Manager, BRAHEC-Community Health Interpreter, Healthy Families 2005, HOPWA, Blue Ridge AHEC  
 Support FY05, Community Capacity Building Workshop, Hispanic Lay Health Promoter Program, Blue Ridge  
 AHEC, Venture Grant 2003, BRAHEC-Interpreter Service, Harrisonburg-Rockingham Free Clinic, Interpreta-  
 tion Services, International Festival & Project Connect-JMU: *Christopher Nye*  
 HIV Consortium for Northwest Region: *Vida Huber, Chris Nye, Jane Hubbell*

### **ISAT**

Radio Frequency Effects II: *George Baker*  
 Mercury Areas in South River: *Thomas Benzing*  
 Phase 2: Optical Diagnostic System: *Joe Blandino*  
 Measurement for Balloon Structure: *Joe Blandino & Jonathan Miles*  
 Fuel Cells in Trailer Refrigeration Units: *Christie Brodrick*  
 Six Sigma Curriculum: *Michael Deaton*  
 Synthesis Regional Support Center at JMU & Green Springs  
 Data Management: *Steven Frysinger*  
 Shenandoah Valley Pure Water 2000 Forum Staff Support: *Bruce Lundeen*  
 Support of VA Wind Energy: *Jonathan Miles*  
 Mat Atmospheric Deposition '05 Program: *Wayne Teel*

### **Kinesiology**

2003 Health & Physical Activity Institute: *Jacqueline Williams*

### **Mine Action Information Center**

MAIC-DOS Outreach Support, ITEP Database & Diplomacy in Action CD: *Dennis Barlow*

### **Nursing**

Caregivers Community Network, Adult Nurse Practioner Program & Alzheimer's Demo Model: *Merle Mast*

### **Psychology**

CDC 2005 & Ed Consultant FY05: *Elizabeth Dahmus & Penny Critzer*  
 Preventing Youth Smoking: *Steven Evans*  
 VA Child Prot News FY 04-05: *Joann Grayson*

# INNOVATIONS IN CLINICAL COMMUNICATION SCIENCES 2004

We are pleased to announce that the department of Communication Sciences and Disorders will be sponsoring the Fifth Annual Innovations in Clinical Communication Sciences Conference on October 15 & 16, 2004. The conference will take place in the Health and Human Services building. We will be featuring renowned speakers in the areas of both speech-language pathology and audiology. The conference content is aimed at providing the practicing audiologist and speech-language pathologist with knowledge of contemporary issues involved in the identification, diagnosis & management of speech, language, hearing and balance disorders. Concurrent sessions will be offered for audiology and speech-language pathology. We anticipate somewhere between 175 and 225 audiologists and speech-language pathologists in attendance. Also being held on Friday of this year's conference is a silent auction as well as a wine and cheese party with Karaoke open to all participants! The silent auction will be offering the works of local artists and craftsmen, in addition to items provided by local businesses and restaurants. All proceeds from the auction will go to the advancement of research in clinical communication sciences and disorders here at JMU. If you have any questions regarding the conference, or to request a copy of the brochure, please contact the CSD department or check out our website!

[http://www.csd.jmu.edu/conference\\_04/index.htm](http://www.csd.jmu.edu/conference_04/index.htm)



## *Supporting the Children and Families Of the National Guard*



Some wonderful and unconventional interprofessional work is being conducted by students in the Community Counseling graduate program and Combined-Integrated Psychology doctoral program. Graduate Psychology students and faculty conducted on-site group and individual supportive work at the Staunton Armory with the children from families with members serving in the National Guard. The students obtained permission to take pictures of the children and then these pictures are posted. The family members stationed away from home can then view the photos. How delightful for the absent parents to see their children having fun with a caring adult.

Students had the photos developed and posted the pictures on the web.  
They are available at the Digital Yearbooks page, link below:

[http://psychweb.cisat.jmu.edu/counselpsyc/digital\\_yearbooks.htm](http://psychweb.cisat.jmu.edu/counselpsyc/digital_yearbooks.htm)

Learn more about the issues facing the families at the following site:  
<http://www.mfrc-dodqol.org/healthy parenting/index.cfm>

# WHAT'S NEW IN THE CISAT LIBRARY

## BY JENNIFER MCCABE, HEALTH & HUMAN SERVICES LIBRARIAN

Now that this academic year is in full swing, it seems like a good time to highlight some of the changes that took place in the CISAT Library over the summer. While many of you were enjoying a well-deserved summer recess, the staff in the library was busy reconfiguring the public space and integrating new resources into our offerings. You may have heard by now that a new library is going to be built on the east campus, but the opening date is still at least four years away. With that in mind, we decided to make the best use out of the limited space we have now.

Some of the improvements are outlined here:
 

- We are still in room 2021 but we have moved the service desk to the other end of the room and chosen to use the other entrance. By moving things around slightly we were able to add an additional study table, three carrels, a new display table and a comfortable couch.
- We have gotten additional shelving to accommodate our growing reference collection. Jennifer and John spent some time in the stacks and reference area of Carrier Library selecting additional items to move to CISAT.
- The media viewing area is now in a semi-private area near the back. We have two televisions, and a screen separating them from the general area.
- Our busy staff is now situated in an upgraded workspace in the back room. In addition to their own desks, we have additional storage space for the PDAs and laptops we are circulating.
- Yes, laptops! We have 4 Dell Latitude D600 laptops that are wireless ready and can be checked out by students and faculty, for up to four hours.
- We now have a small collection of recreational reading books. At the request of a number of bibliophiles among you, we have acquired a browsing collection of popular fiction and non-fiction for your reading pleasure. Located in the middle of the

room, this collection will grow by a few titles per week. These books will circulate for two weeks.
 

- CISAT International donated a globe and a world map.
- We are currently displaying artwork by Julia Merkel, from Carrier Library. (If you are an artist and would like the chance to hang your work on the walls of the CISAT library, contact Jennifer McCabe, [mccabeja](mailto:mccabeja)).
- The library is a busy place, and we strive to keep it attractive.
- New student workstations. In the next few weeks, we will be upgrading all of the public workstations in the library with new Dell machines.

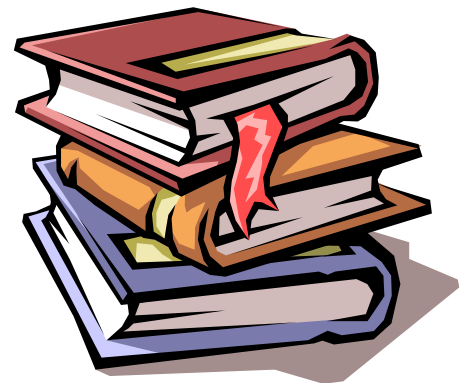
In addition to upgrading the physical space, we have also added some new databases and online journal collections. Jennifer was on educational leave over the summer, recording a series of web-based video modules that explain the research process, for graduate students. John also used the same technology, Tegrity, to record an orientation for new ISAT graduate students. We have provided a link to all tutorials on our web page at <http://www.lib.jmu.edu/cisat/tutorials.html>.

Through our participation in VIVA, the Virtual Library of Virginia, we were able to get access to 241 new nursing and allied health journals, available in full-text online through the CINAHL database. We also secured online access to the *New England Journal of Medicine*, to a number of new Science Direct titles, including *Infosecurity Today* and *Public Health Reports*, and to 33 new journals published by Kluwer, ranging from *Child and Adolescent Social Work* to *Plant and Molecular Biology* to *Research in Higher Education*. All of the new journals can be found using our periodical locator, linked on our web page.

While our square footage has been

constant over the last four years, our services and holdings have increased significantly. During the 2003-04 academic year, we filled 1207 article and book delivery requests, circulated reserve items 2017 times, and served thousands of students, faculty and staff. Electronic full-text periodicals now number 4706 titles, all of which are accessible to JMU faculty and students from any computer on campus or from home. John and Jennifer offered subject-specific library instruction to hundreds of students in at least 25 different classes and assisted countless others with independent research projects and reference questions.

As we enter the planning phase for the new library, we will seek input from all of our users. We don't know what this building will look like yet, but one thing is certain: we will continue to provide our faculty and students with the best services possible. Thanks to the support that the Library has received from JMU and CISAT administration, the services and collections that we are able to provide are keeping up with the dynamic university that they serve. We invite you to stop in the library and see what's new.



## NEW MASTER'S IN NURSING DEGREE

A \$1.2 million federal grant written by the JMU Nursing faculty is funding a new master's program aimed at increasing the numbers of nurses serving the needs of a rapidly aging population and of teachers of nursing to combat a national critical shortage of nurses.

The first master of science in nursing program at JMU has been launched this fall thanks to a three-year Advanced Education Nursing Program grant from the Health Resources and Service Administration of the U.S. Department of Health and Human Services.

Merle Mast, professor and head of JMU's department of Nursing and project director for the grant, said the two-year master's program offers two role options: nurse practitioner and nurse educator.

Graduates of the nurse practitioner track will be certified as adult or gerontological nurse practitioners, with the focus on providing primary care. The nurse educator track will train graduates to teach in collegiate nursing programs and community education settings.

Associate Professor Linda J. Hulton, coordinator of the master's program, said the

value of the nurse practitioner track will be to improve the health and quality of life for older adults in Virginia, including those in medically underserved rural communities.

"In our area, there are 10 communities designated by the government as 'medically underserved' and 'health-professional shortage areas,'" said Hulton. "The current and future impact of chronic disease in the Blue Ridge region is profound, and our new program will help to meet that need by providing nurse practitioners who have special training with aging clients."

Nationally, a quarter of Americans will be age 65 or older by 2030, doubling from 13 percent of the U.S. population in 2000— an increase of 30 million— according to JMU's nursing department.

Virginia is projected to reach the 25 percent mark of older adults in the commonwealth five years earlier in 2025.

Hulton said the effect of those projections on health-care systems nationwide will be significant because the elderly are the greatest users of in-patient medical care and pharmaceuticals, and they have higher rates of hospitalization, surgery and doctor

visits than other age groups.

"As health-care consumers age, their health-related needs and their consumption of services escalate," Hulton said, "while their abilities to negotiate the complex health system decline. APNs (advanced practice nurses) are needed who can coordinate and manage care across a complex and fragmented health-services system."

JMU's new nursing educator program addresses a growing shortage of teachers both nationally and in the Shenandoah Valley, Hulton said, adding that Virginia has acknowledged that an inadequate number of nursing faculty is one of the major barriers to increasing enrollments, despite a pressing shortage of nurses.

"JMU's new master's in nursing education will help fill this need for nurse educators," she said.

Full- or part-time enrollment in the program is available and the Web-enhanced curriculum will lend itself to working nurses, said Hulton, who also noted that classes will meet one day per week.

Information on the master's program may be obtained by calling (540) 568-6314.

## NEWS FROM KINESIOLOGY

*Kinesiology continues to grow with 570 undergraduate majors and 75 graduate majors. In addition we serve over 1500 students each year in our Gen Ed KIN 100 program.*

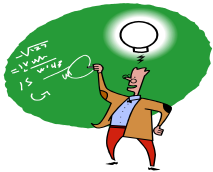
*Kinesiology made two changes to our undergraduate program this year. Students in Physical Education now complete a fifth year to earn a Master of Arts in Teaching (MAT) degree along with Virginia state teaching licensure in physical and health education. Also we integrated the concentration in Recreation Management within the concentration in Sport Management to better prepare students for professions*

*within the broader 'mega sport/leisure' industry.*

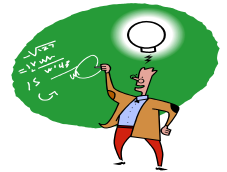
*The Human Performance Laboratory continues to be active and productive. CISAT colleagues are encouraged to visit our renovated lab. Two streams of research that will continue this year include projects exploring the efficacy of sport drinks on performance and projects studying the effects of electronic media on fitness in both school-aged children and university students.*

*Kinesiology welcomed five new faculty members this year- Larry DeGaris, Ron Dick, Susan Nye, Jana Walters, and Molly Whittaker. We are fortunate to have these fine teachers/scholars join our faculty.*

*Other news: a new Center for Sports Sponsorship, a nonprofit entity dedicated to sports sponsorship research, has formed at James Madison University and its first topic of study will be NASCAR sponsorships. The center is directed by Dr. Larry DeGaris, Associate Professor of Kinesiology, who will oversee all its functions, including research design, data analysis, report writing and strategic consulting. The center's kickoff project, which will launch this fall, will be the NASCAR Sponsorship Study, a national survey of NASCAR fans that will examine sponsorship effectiveness, NASCAR's brand image, driver popularity and fan behaviors.*



# CISAT New Faculty 2004



Christopher Bachmann (ISAT)- Christopher received a B.S. in mechanical engineering from Rutgers University, an M.S. in bioengineering from Penn State University, and a Ph.D. in biomedical engineering from the UVA. Prior to JMU, he was on the faculty at Penn State University and the UVA.

B.J. Bryson (Social Work) - B.J. received a B.S. from the UNC, an M.S. from the University of Georgia, and a Ph.D. from the University of Washington. Prior to JMU, she taught at Barry University in Florida. Her areas of research include welfare to work, cultural diversity/multiculturalism/human diversity, pedagogy in social work education, and field education.

Cindy Cadieux (Health Sciences) - Cindy received a Ph.D. in Urban Services/Urban Education. Prior to JMU, she was a visiting professor at Regent University in Virginia Beach, VA where she taught primarily online in the teacher preparation program and the doctoral program. Research interests include designing a research agenda and program for Nutrition and Autism.

Bill Ernst (Grad. Psych)- prior to JMU, he was a clinical neuropsychologist at the University of Medicine and Dentistry of New Jersey, Cooper Hospital. He is now assistant professor in the School Psychology program of the Department of Graduate Psychology.

Belka Kraimeche (ISAT) - Belka

received a Ph.D. and M.S. in electrical engineering from Columbia University and an M.S. in computer and decision science from Pratt Institute. Prior to JMU, he had 22 years of full-time academic experience at 4 universities: Stevens Institute of Technology, Washington State University, the Cooper Union for the Advancement of Science and Art, and Pratt Institute. He was also affiliated with Columbia University as an adjunct faculty. He is now a professor in the Telecommunications area of concentration with the ISAT Department.

Kristi Lewis (Health Sciences) - Kristi received a B.S. in biology from VCU, M.S. from the Medical College of Virginia, and a Ph.D. from VCU. Prior to JMU, she worked as an Epidemiologist with the VA Dept. of Health in the Crater Health District. This job involved investigating disease outbreaks, following up with identified cases, and working on bioterrorism related activities and emergency preparedness.

Daniel Shaffer (ISAT) - Daniel received a B.S. in geography from JMU. Prior to JMU, he worked for Terralogic, Inc., Land and Community Associates, Patton, Harris, Rust & Associates, and Air Photographics, Inc. He is now an instructor in the Geographic Sciences major.

Christopher Watts (CSD)- prior to JMU he was on the faculty of the Dept. of Speech Pathology & Audiology at the University of South Alabama and before that the University of Central Florida. Teaching and research interests are in voice

production and voice disorders, and motor speech disorders (dysarthria).

Mary (Molly) Whittaker (Kines & Rec.) - Molly received a B.S. from Colgate University and graduated from JMU last May with a Masters degree in Kinesiology with a concentration in Athletic Administration and Coaching. She is currently an instructor and the assistant director of the Center for the Promotion of Physical Activity for Girls and Women.

Hyong Yeom (Social Work) - Hyong received an M.S. and Ph.D. from Brandeis University. Prior to JMU, she was a researcher, teaching fellow, mental health therapists, counselor, reporter, co-founder and manager of a small trading company and English teacher. She is now an assistant professor in the Department of Social Work.

Tracy Zinn (Psych. Dept.) - Tracy received a B.S. from WVU and an M.S. and Ph.D. from Auburn University. Prior to JMU, she taught at Stephen F. Austin State University in Texas. Her primary research interests are in the area of teaching and training.

Other new faculty include: Larry Degaris (Kines & Rec.), Ron Dick (Kines & Rec.), Michael Hall (Psych. Dept.), Claire Jacobson (CSD), Alden Kent (Health Sciences), Jeffrey Marler (CSD), Denise Miller (Nursing), Susan Nye (Kines & Rec.), Bryan Saville (Psych. Dept.), and Jana Walters (Kines & Rec.).

# HAPPY BIRTHDAY WISHES

## OCTOBER

- 1– Bonnie Walker, Psychology  
 2– Penny Critzer, Child Development Clinic  
 4– Teresa French, Madison Medialab  
 5– Susan Ingram, CSD  
 10– Dennis Barlow, MAIC  
 11– Suzanne Baker, Psychology  
 12– Barbara Chandler, Health Sciences  
 Cara Sidman, Kines & Rec.  
 13– William Evans, Psychology  
 Nancy Harris, Computer Science  
 16– James Benedict, Psychology  
 17– Marcia Chamberlin, Blue Ridge  
 AHEC-JMU Outreach  
 18– Steve Stewart, Dean’s Office  
 19– Craig Shealy, Grad. Psychology  
 21– Merle Mast, Nursing  
 25– Kevin Apple, Psychology

## NOVEMBER

- 1– Michael Hall, Psychology  
 5– Mal Lane, Computer Science  
 Joyce Plymale, Kines & Rec.  
 7– Liz Adams, Computer Science  
 Ruben Prieto-Diaz, Computer Science  
 8– Mary Handley, ISAT  
 9– Mike Deaton, ISAT  
 Nena Patterson, Nursing  
 11– David Knitter, IHHS  
 13– Tonia Hedrick, Nursing  
 14– Becky Rohlf, Computer Science  
 16– Bob Tucker, Computer Science  
 17– Charles Huffman, Psychology  
 19– Ralph Grove, Computer Science  
 Liz Dahmus, Child Development  
 Clinic  
 21– Ann Myers, Social Work  
 Holly Scott, Attention & Learning  
 23– Michele KIELTY Briggs, Grad. Psychology  
 24– Rosa Turner, Grad. Psychology  
 25– Anne Stewart, Grad. Psychology  
 26– Cindy Klevickis, ISAT  
 Renee Staton, Grad. Psychology  
 Robert Segaar, Madison Medialab  
 28– B.J. Bryson, Social Work  
 29– Paul Goodall, ISAT  
 Johnathan Walker, ISAT  
 30– Bob Kolvoord, ISAT  
 John Noftsgen, ISAT

## DECEMBER

- 2– Mary Kimsey, ISAT  
 3– Judy Carter, Child Development  
 Clinic  
 5– Ken Lewis, ISAT  
 8– Terry Wessel, Health Sciences  
 10– C.J. Brodrick, ISAT  
 Christopher Rothgeb, Lab Operations  
 13– Jim Hammond, Health Sciences  
 14– Mohamed Aboutabl, Computer  
 Science  
 17– Brenda Seal, CSD  
 18– Becky Shaver, CSD  
 19– Gwen Good, Computer Science  
 22– Mac McMillen, TSEC  
 27– Mary Bettner, Nursing  
 28– Barb Gabriel, ISAT  
 29– Mary Lou Cash, ISAT  
 Tony Chen, ISAT  
 31– Jane Hilton, CSD





# College Highlights & Announcements



## October 15-17

Fall Break

## October 15-16

ICCS Conference

## October 20

Proposals due for Educational Leave

## October 27

PT Expo

## October 30

Homecoming

## November 10

Hardaway Lecture

## November 13

Virginia First Lego League Competition

## November 15

Mosier Fellowship Presentation

## November 24-29

Thanksgiving Break

## December 1

Proposals due for Teaching & Research Grants

## December 3

Last day of classes

## December 6-10

Final Exams

## December 10

College Holiday Reception



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Visit us on the Web at

[www.jmu.edu/cisat/](http://www.jmu.edu/cisat/)

Comments about this issue and suggestions for future issues can be e-mailed to Julie Love at [lovejl@jmu.edu](mailto:lovejl@jmu.edu)

*The Office of the Dean of  
CISAT welcomes back all  
faculty and students!*

