



Vinculum

A newsletter of the
College of Integrated Science & Technology

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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.

Message from the Associate Dean

As I write this column I'm reminded that both an eventful semester and year are drawing to a close and it is a natural time for reflecting on the months just past as well as those that are ahead. I've been impressed this fall as we've faced the realities of budget limitations, that there has been a spirit of cooperation and good will. We've been stretched and needed to modify plans but together we've made it to this point. I would like to express our heartfelt thanks to each one who has made student learning their priority and found ways to provide meaningful learning opportunities. Our students are the richer for your efforts.

Many important activities have taken place among the individuals within our college during the past several months. Numerous persons have been given awards and their accomplishments have been noted. Books and articles have been published, grants have been funded, and many presentations have been given to both professional societies and community groups. Professional organizations and the products of their committee work have been shaped by the hard work

and efforts of our expert faculty. Volunteer contributions have made an impact in our community. Join me in applauding and celebrating all of these accomplishments.

Following my hospitalization and illness this fall, a friend brought me several books and one that I particularly enjoyed was Undaunted Courage, the New York Times Bestseller by Stephen Ambrose about the Lewis and Clark expedition that was instrumental in the opening of the American West. As I read this fascinating and fact-filled account of their adventures and perseverance in reaching their goal amidst incredible obstacles, I realized how little we know of hardship and endurance. It was a challenge to note the strength of purpose Meriweather Lewis evidenced in his efforts to meet both the expectations of Thomas Jefferson and his own standards of research and study. Lewis took great care as he collected specimens, made scientific measurements, recorded observations, and shared interpretations of what he saw and experienced. I frequently see this same kind of careful work and scholarship as I observe the products of you my colleagues. Congratulations.

The cold and snow of recent days are a clear statement of the fact that winter is here and we are entering the period where daylight, too, is becoming increasingly limited. Sometimes we tend to dread this period in the seasonal cycle. I believe, however, that there is something special about the darkness of winter that offers unique opportunities. Darkness can limit the distractions that tend to sidetrack, and winter is a good time for hibernating and pondering important ideas. Darkness is fertile and can be a time of creativity that results in new ideas and generates enthusiasm and excitement. And so, as we enter this period of greater darkness I challenge each of us to capitalize on these opportunities. As we do so we can anticipate that with the arrival of spring we will all be the benefactors of the new ideas which are birthed. My best wishes to you in this process -- and have a wonderful holiday season.

*Vida Huber,
Associate Dean,
CISAT*

BRENDA SEAL'S SIGN LANGUAGE CD

At least 80% of deaf and hard-of-hearing students are currently being educated in their local schools. Twenty-four thousand of these students access the spoken language of the classroom through sign language interpreters. In Virginia, educational interpreters must pass a performance test that requires them to demonstrate at least 80% accuracy in signing spoken language and in voicing sign language. Most of our educational interpreters struggle with the receptive part of the test, the voicing test.

In an effort to upgrade interpreters' sign-to-voice interpreting skills, Brenda Seal, Professor of Communication Science and Disorders, has received funding for the past three years from the Department of Education to create training CDs. She videotaped deaf teachers at the Virginia School for the Deaf in

Staunton as they instructed in content courses (lessons in algebra, English literature, on photosynthesis, in world geography, etc.) and then, with students assigned to the project in the Madison MediaLab, she captioned and voiced the deaf teachers' American Sign Language. The instructional sections of the CDs focus on the teacher's communication, particularly on nuances of their American Sign Language that are often missed by developing interpreters. "Content-based instruction: Sign-to-voice interpreting 01 and Content-based instruction: Sign-to-voice interpreting 02" were field-tested during the 2000-2001 and 2001-2002 academic years and made available to the Department of Education to distribute. A third CD is now underway that will include teachers from the Model Secondary School at Gallaudet University.

Brenda presented the sec-

ond CD at the National Educational Interpreters Convention in San Antonio in August. She also presented it to the Research Department faculty at Rochester Institute of Technology in November. The responses were overwhelmingly positive, and while she did not intend to make these available outside the state, the Department of Education has agreed for her to send them at cost outside the state. As Brenda stated, "There are many sign language CDs on the market today, but none of them capture master teachers instructing in the language of academics as it is presented in American Sign Language. These CDs should be a tremendous boost to the educational interpreting field and may, as suggested at Rochester Institute of Technology, provide new direction in educational research."

Staff Appreciation Luncheon

On October 31, 2002 CISAT held its annual staff appreciation luncheon. There were over 60 classified and part-time employees in attendance. The Dean expressed his appreciation for everyone's hard work throughout the year. New employees were introduced and CISAT t-shirts were given out.





JMU Students, Community to Simulate Life in Poverty

**Article by Charles Culbertson,
Media Relations**

**Pictures from Emily Akerson,
CIHHS**



What's it like to live in poverty? Community leaders and students from James Madison University's health and human services programs found out on, October 22-23, in "Life in the State of Poverty," a simulation designed to sensitize participants to the realities faced by people living on a low income.

"Our goal is to impress on our students how powerless they become while living in poverty," said Linda J. Hulton, an assistant professor in JMU's nursing program who coordinated the event with Brenda Olafson of Virginia Tech's Home Extension Agency. "Sometimes it's easy to blame the victim. This simulation allows a very poignant look at the realities that some families face on a daily basis. Sometimes, all it takes is one crisis, such as the loss of a job or the death of a spouse, to put someone out of their home or move them onto welfare rolls".

In the simulation, participants portrayed people with low incomes from various kinds of families— some were unemployed, elderly or disabled, while others had been deserted by the family breadwinner. With a severely limited amount of money, they had to meet specific goals, such as obtaining food, clothes and medical care from participants who represent community resources.

Of the 150 people who portrayed family members, the majority were students in nursing, social work and health sciences. Real police officers, grocers, social workers and other resource personnel formed the groups from which services were obtained.

"The simulation was valuable for our students because it helped prepare them to work with vulnerable clients in the community," Hulton said.

This is the fifth year that JMU has sponsored the simulation for students.



The Health Place Center for Innovation in Health and Human Services



Emily Akerson, Program Coordinator, CIHHS,
Director, The Health Place

The Health Place, in rural Page County, provides a variety a health outreach services in response to needs that have been identified by the community. It was established in February 2000 on East Main Street in Stanley, Virginia to

- 1) respond to community identified need,
- 2) with unduplicated services,
- 3) involving active and willing faculty, students and community partners
- 4) providing cross-disciplinary holistic health and human services.

The Health Place provides a context for need based community campus partnership activities to grow and develop. "The Health Place is not a competitor in health and human services," said Dr. David Cockley, principal investigator for the Page County community Health Needs Assessment and Steering Committee member. "Partnerships are fostered to provide services that respond to an unmet need, that fill a gap."

Funded by a variety of sources including the Center for Innovation in Health and Human Services and the Blue Ridge Area Health Education Center, The Health Place puts students in partnership with the community to address the health needs of area residents. The Health Place reflects more than fifteen partnerships, all of them responding to a need identified by the community. Most of the initiatives through the Health Place fit into one of four categories: issues of aging populations, issues of children and youth, multicultural issues and complementary health and healing issues.

After opening The Health Place, Dr. David Cockley, JMU health administration faculty and a member of The Health Place Steering Committee, developed a four part proposal for a community health needs assessment of Page County. The goal was both to provide The Health Place with information to guide its development and to make the information available to the community.

Social work, health sciences and nursing students have been involved in the project. For two semesters, the social work research course worked on the Community Health Needs Assessment providing real-life need based experience for students and meeting an important community need. Since its publication, community agencies have used the data to write grants to support need based initiatives. It is truly an exciting win-win process. Students meet course requirements through real life community need based initiatives.

Healthy Families, a national program of home visiting support for vulnerable families, was funded as of July 2002 as a new initiative out of The Health Place. Christopher Nye of the Blue Ridge AHEC wrote the grant to fund Healthy Families Page County. A Community Planning Task Force met for two years at The Health Place to develop the program. Regina Holley, a social work student, participated in the planning group and provided much needed assistance in developing a community resource directory for the initiative. Liz Dahmus, JMU Child Development Clinic, Christopher Nye, Blue Ridge AHEC and community agencies in partnership with the Center for Innovation have provided tremendous support for the program. Students from a variety of disciplines continue to be an essential resource as the program develops. Healthy Families Page County anticipates involving students in a variety of ways in support of vulnerable families in Page County.

The Last Chance School Physicals is another example of a collaborative effort through The Health Place. Identified as a need by local health professionals, it is program to provide school entry physicals for children who experience barriers in accessing this service. The JMU Child Development Clinic, the Health Department, Migrant Education, Page Primary Care, AHEC Cross-cultural programs,

JMU Physician Assistant Program and local volunteers have partnered to provide this service for families, the payment being a voluntary donation of non-perishable food items for the local food bank.

Page County Council on Domestic Violence, also known as CHOICES, has been a partner program with The Health Place since the beginning. CHOICES' Kid's Night Out program provides weekly activities for children living in the domestic violence shelter. JMU nursing, social work and health sciences students have provided this important activity for children. CHOICES is now interested in expanding the program to involve a health promotion group activity for the parents.

Also through The Health Place, the local Girl Scouts with JMU students have developed a program devoted to the prevention of domestic violence, substance abuse and teen pregnancy. Girl Scouts have developed age appropriate curriculum on these issues and JMU students have presented programs addressing these issues for a variety of age groups.

Other partners with The Health Place include the Page County Senior Center, the Parent Infant Education Program through CSB, Migrant Education and Caregiver's Community Network. New initiatives develop in response to need and the availability of active and willing faculty, student and community partners.

The Health Place is a wonderful context to involve students in real life need-responsive activities. In the words of a senior nursing student "This experience complimented what we are learning in class... Providing the services not only made a difference in the client's life but also in my life."

Please contact Emily Akerson (akersoek@jmu.edu) for opportunities for involvement or for more information.

INTEGRATING ROBOTICS INTO THE CS AND ISAT IKM CURRICULA

The primary goal of this project was to develop a robotics curriculum component for the course CS/ISAT 344—Intelligent Systems. Secondary goals included developing familiarity with the Lego Dacta robotics platform as a teaching tool, strengthening relationships with K-12 teachers, and providing an opportunity for K-12 students to learn about robotics and programming.

On June 26 & 27, we conducted a robotics workshop for a group of 12 elementary and middle school students. The workshop included sessions on how to use the Dacta hardware and software, an introduction to programming, and a final problem-solving competition. At the end of the workshop, we received many positive comments from the students, including suggestions to make it a full week in length next time!

Planning for the workshop began early in the spring semester with the acquisition of six Lego Dacta robotics kits, which were selected after consultation with the CISAT lab operations manager, Joe Blandino, and a vendor representative. Over the course of the semester, we spent time becoming familiar with the kits, including the RoboLab software. During the spring semester we also developed contacts at Thomas Harrison Middle School, with the help of Chuck Watson of the School of Education. The THMS faculty gave us advice about the capabilities and interests of students there, with respect to

the planned workshop, and assisted in recruiting.

The workshop was conducted June 26-27, 2002 in the CISAT Instrumentation Lab. Fourteen students from grades 5 through 7 from area schools attended. The workshop agenda included an introduction to the Lego kits, lessons in using the Robolab visual programming environment, and a final half-day challenge that gave the students a chance to be creative with what they had learned. Two CS students, Bill Lehner and Graham Kerster, assisted with the workshop. On the day prior to the workshop, Bill and Graham played the role of workshop participants during a dry-run of the workshop, which allowed us to fine-tune the curriculum. Bill and Graham also helped to clean up the lab afterwards.

Curriculum Development:

Currently, we are both involved in developing a curriculum component for CS/ISAT- 344, which will be presented mid-November, 2002. We plan to include much of the same material that was covered in the summer workshop (introduction to the Lego kits, visual programming, etc.), accompanied by a broader overview of the field of robotics and related issues. We hope to be able to related students' experiences with the Lego kits to real-world robotics design and development problems.

Possible follow-ups:

We are currently investigating an association with VaTech for the purpose of developing RoboLeague teams in the area. The RoboLeague association provides team-based competitive activities using the Lego kits that involve K-12 students. We have agreed to develop a summer workshop for K-12 teachers on teaching computer programming using the Lego kits, if currently pending funding is approved. We are continuing to develop the idea of a robotics course that would be shared between CS and ISAT departments. This course would necessarily involve not only the Lego kits, but more sophisticated robots as well.

Outcomes:

Through these activities, we have developed an understanding of the Lego robotics kits and of how they can be used in workshops and classes to teach principles of robotics, as well as to introduce students to computer programming. CS/ISAT 344 has been improved through the addition of a curriculum module pertaining to robotics. The Lego kits will likely continue to be used in summer workshops with K-12 students and teachers, helping to promote technology education and to develop partnerships between JMU and K-12 education.

Ralph Grove, Department of Computer Science and Joe Marchal, Department of Integrated Science and Technology

Psychology Conference

More than 200 people gathered in Atlanta Sept. 27-29 for an American Psychological Association conference organized to help psychology instructors handle the growing pressure to demonstrate what students have learned. Organizers believe that the conference, "Measuring up: best practices in assessment in psychological education," is the first of its kind for any discipline.

In workshop sessions and speaker presentations, conference participants learned strategies for preparing for departmental reviews, improving students' writing, compiling evaluative portfolios for students and administrators, and assessing student learning online. Speakers offered tips for build-

ing faculty consensus on student learning objectives and for crafting and using comprehensive and standardized tests. They also shared ways to develop exit and alumni surveys and to evaluate student research projects.

The conference grew out of the APA Education Directorate's 1999 Psychology Partnerships Project (P3), which brought together educators from high school through graduate school to forge partnerships. Consistent with the partnership philosophy from P3, conference organizers recruited keynote speakers from across educational contexts. In addition, six psychology departments, one of which was JMU, described their distinctive approaches to the assessment challenge.

In closing the meeting, conference program chair, Jane Halonen, Ph.D. from JMU, discussed how psychology departments can tap 10 BEA-endorsed achievement goals for undergraduate students. Halonen, who chaired the APA task force that developed the goals, explained that the group has produced an Assessment CyberGuide, which will soon be available at www.apa.org/ed, to guide departments' reading and use of the goals. The document is meant to help departments develop assessment plans based on the learning goals. Conference attendees agreed to capture the best ideas from the conference in a text to be published by the APA.

Article by Bridget Murray, Monitor Staff. Jane Halonen, Ph.D., also contributed.

TOBACCO GRANT

Tobacco Settlement Funds Attention-Deficit Smoking

James Madison University will launch a treatment-outcome study aimed at reducing tobacco use among children with attention-deficit hyperactivity disorder using a \$193,000 grant from the \$246 billion tobacco settlement of 1998.

Steven W. Evans, associate professor of Psychology at JMU, said the collaborative project with Harrisonburg Pediatrics and Harrisonburg City Schools, "Preventing Youth Smoking through Coordinated Community-Based Care," will research cigarette smoking among teen-agers with ADHD.

"Adolescents with ADHD smoke at twice the rate of their peers," Evans said. "What we're proposing in our study is to prevent smoking by treating the disorder that manifests itself in early childhood." Evans said, while many traditional smoking-prevention studies have focused on young people, most are conducted "independently of whatever the risk factor is." The JMU study, he noted, will target a specific risk factor and seek to reduce the rate of smoking within that group.

Evans said the study will also break new ground in that it will use Web technology to enhance communication between teachers and medical professionals. "Children with ADHD are treated in a number of ways, the most common of which is to go to a doctor and receive medication," Evans said. "Other common methods include going to a mental-health counselor for counseling and receiving services at school. It is rare for doctors and teachers to communicate and coordinate care. It almost never happens." "We want to change that."

Evans said that doctors, teachers and mental-health professionals will be able to communicate with one another and evaluate treatments through a secure Web site created for each child participating in the study. "By effectively and continuously treating children with ADHA across the period of time when they are at the most risk for starting smoking, we believe we can turn that rate of smoking back to the rate experienced by their peers without ADHD," Evans said.

The \$193,00 award to JMU was distributed by the Virginia Tobacco Settlement Foundation, which was created by the General Assembly in 1999 as part of the Master Settlement Agreement. Evans said the grant will fund the study for the first year and is renewable for a total of six years.

Written by: Charles Culbertson, Media Relations

Coming Attractions & Department Highlights

January 13

Classes resume for Spring Semester

January 20

Martin Luther King Day—
University Closed



February 5 & 6

Energy Symposium, ISAT

February 18

Assessment Day
No classes 8:00– 4:00

HAPPY BIRTHDAY WISHES

JANUARY

1– Sharon Maiewski, Health Sciences
Harry Nesselrodt, Jr., Kines & Rec.

5– Melody Eaton, Nursing
Brenda Ryals, CSD
Tammy Wagner, Health Sciences

6– Maggie Maloney, Health Sciences

9– Lanny Burt, Tech. Support
Jane Crockett, Psychology
Robert Hinkle, CSD

10– Jack Presbury, Psychology
Susan Rippy, Psychology

11– Joe Marchal, ISAT

14– Jeffrey Konin, Health Sciences

15– Paul Henriksen, ISAT
Kathy Laycock, Computer Science

17– Forrest Nesselrodt, Tech. Support

18– Craig Abrahamson, Psychology

20– Susan Emrich, Free Clinic

21– Patcie Brevard, Health Sciences
Dee Nilsen, Tech. Support

23– Ashton Trice, Psychology

24– Gauri Rai, Social Work
Michael Saunders, Kines & Rec.

25– Cindi Wilson, ISAT

28– Fred Copithorn, Lab Operations

30– Anne Henriksen, ISAT

31– R.E. Burnett, ISAT



FEBRUARY

2– Terry Crickenberger, Nursing
Carolyn Firkin, MAIC
Sherry Matthews, HDC
Terri Prodoehl, Health Sciences

7– Karim Altaï, ISAT

16– Gerri Rigney, Social Work

19– Julie Gochenour, Blue Ridge
AHEC-JMU Outreach

20– Ellie Swecker, Free Clinic

22– Jack Taylor, ISAT

23– Stephen Wright, ISAT

24– Rita Teutonico, ISAT

25– Jeff Kushner, ISAT

26– Tonya Osinkosky-Perez,
Shenandoah Valley Migrant Education

27– Connie Peterson, Health Sciences
Jon Spindel, ISAT
Marylin Wakefield, Social Work

MARCH

3– Tom Syre, Health Sciences

5– Joe Rudmin, Lab Operations

6– Harriet Cobb, Psychology
Karen Ford, Social Work

7– Steve Wang, Computer Science

10– Joann Grayson, Psychology

13– Becky Helton, CSD

14– Pamela Bailey, Health Sciences

15– Abdel Rabie, ISAT
Dick Travis, Health Sciences

17– Cathy Gilbert, Shenandoah Valley
Migrant Education

18– Debbie Ford, Health Sciences
Pamela Gibson, Psychology
Challace McMillin, Kines & Rec.

19– Peggy Kellers, Kines & Rec.
Helmut Kraenzle, ISAT

21– Hossain Heydari,
Computer Science

22– Angela Berry, Madison Medialab

23– George Baker, ISAT

24– Bob McKown, ISAT
Margaret Slattery, Kines & Rec.

25– Nancy Grembi, Social Work
Ken Parmalee, Dean's Office

27– Vida Huber, Dean's Office

28– Gene Tucker, ISAT

29– Dave Cockley, Health Sciences
Janet Gloeckner, Health Sciences

31– Zach McNeils, Tech. Support
Hope Thompson, Dean's Office

CISAT FACULTY AND STAFF HOLIDAY PROJECT



CISAT chose as our holiday project to purchase gifts for the children in the Social Services system who are members of families that could be homeless, in foster care, or just in need of a helping hand this season.

There are at least 200 children in

our community in the Social Services system during this season. You'll be happy to know that CISAT provided gifts for 60 children! Some of the gifts requested by the children included dolls, barbies, trucks, bikes, big wheels, games, stuffed animals, clothes, and shoes.

Many commented on how much they enjoyed shopping for the child that they chose. The gifts were delivered to the Social Services Department on Monday, December 9th. We sincerely thank everyone who participated.



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Comments about this issue and suggestions for future issues can be e-mailed to Julie Love at lovejl@jmu.edu

*The Office of the Dean of
CISAT wishes everyone a
peaceful and joyous
holiday season!*

