Kristen Cvancara, associate professor of communication studies and Fulbright Scholar, will travel with her family to Finland in January 2012. As part of an international research team, Cvancara will spend six months researching and teaching at the University of Jyväskylä. See story page 8.
The mission of FRONTIERS is to celebrate the scholarly and creative accomplishments of Minnesota State Mankato faculty and students and inform the campus community of research-related opportunities. FRONTIERS is published by the College of Graduate Studies and Research and distributed to Minnesota State Mankato faculty, staff, and graduate students. The College of Graduate Studies and Research welcomes ideas for feature stories and other content consistent with the mission of the newsletter. Please e-mail story ideas to cesr@mnsu.edu.

Minnesota State Mankato has always been a place where big ideas meet real-world thinking. This issue of FRONTIERS highlights the ability of our students, faculty, and staff to build partnerships between the University and the world. By breaking down barriers and creating solutions for the most pressing challenges facing our state, nation, and world, the University is poised to achieve a new level of greatness.
INVESTING IN INTERNATIONAL EDUCATION

More than 250 Minnesota State Mankato students, faculty, and staff participate in some sort of international experience each year. That includes study abroad; research—both independent and collaborative; conferences; cultural exploration; and institutional partnership building.

OPENING RESEARCH POTENTIAL

Scott Fee, associate professor of construction management, said the atmosphere in South Africa is full of hope and potential. Nearly a generation after apartheid, movements in education and economy offer Minnesota State Mankato faculty and students potential research topics and initiatives that are rare in the U.S.

MENTORING BEST PRACTICES

Research indicates that nearly 50 percent of teachers leave the profession within the first five years, but mentoring and support from an experienced teacher can make a huge difference. Lori Bird, director of the Center of Mentoring and Induction, is collaborating with colleagues in Australia to find best practices in mentoring, which will help teachers be successful.

OUTSIDE HIS COMFORT ZONE

A self-described introvert who often chose studying over socializing, Kurtis Malecha leaped out of his comfort zone last summer to conduct nuclear research in Germany. Malecha was awarded the Research Internships in Science & Engineering fellowship to Johannes Gutenberg Universität in Mainz, Germany. He was one of 305 who received an award out of 1,670 who applied.

INTRODUCING THE SCHOOL PSYCHOLOGIST

Schools on Ambergris Caye, a small island of Belize, have not traditionally offered any service like school psychology. That is until 2010 when doctoral candidates from Minnesota State Mankato’s school psychology program visited for the first time.

MEASURING THE DOWNSIDE

Hyuna Park, assistant professor of finance, challenged the traditional risk measure for hedge funds suggested by a Nobel Prize winning modern portfolio theory. Her bold initiative, focused on the downside risk in hedge fund returns, attracted international attention. Park recently presented her idea in both Korea and Portugal.
Mentoring Best Practices

According to director Kristin Dauk, the Office of Field and International Experience at Minnesota State Mankato serves teacher candidates looking for student teaching and/or field experiences in education. However, by design or not, it also provides unique opportunities for international faculty collaboration and research.

Lori Bird, director of the Center of Mentoring and Induction, has successfully placed 47 student teachers in Australian schools since 2009. And since 2010, Bird has coordinated the experience of teacher candidates from Australia working in Mankato schools. Bird explained that one of the goals of the Center for Mentoring and Induction is to work with P-12 school partners to maintain a momentum of support during a teacher’s first years in the profession. Support is critical as some research indicates that nearly 50 percent of teachers leave the profession within the first five years.

Mentoring is not new to the education world, but the process is changing. “We are finding that we need to begin the mentoring process earlier,” said Bird. “And we will continue mentoring new teachers for three years after graduation—creating opportunities for graduates to remain engaged with the University.”

As Bird wraps up her research on student teacher perceptions, she is also preparing notes on expanding her study. “I am interested in conducting further research to find a way to replicate the successful mentoring relationship,” said Bird. “We want to be able to pinpoint the best practices of mentoring relationships.”

Hudson is scheduled to visit Mankato in November to continue discussions regarding additional research. Bird is excited about the possibilities. “We have observed both through the collaborative research tool and through the reciprocal student teaching experience that we can learn so much from each other,” she said. “It is always a fantastic opportunity. Working with colleagues from another culture helped strengthen partnerships and relationships and the types of experiences available for our teacher candidates.”

Lori Bird, director of the Center for Mentoring and Induction, collaborated with colleagues in Australia to conduct research on the mentoring relationship for student teachers. Bird plans to continue her research in an effort to develop best practices in mentoring.
Understanding something in theory is much different than practicing it.

Kurtis Malecha, Minnesota State Mankato undergraduate student, knew there were many ways to approach research, but approaching it from German culture made the lesson come to life. During summer 2011, Malecha spent two months conducting research on nuclear waste in Germany.

“In addition to making me more aware that there are different ways to go about research,” said Malecha, “the experience gave me a global perspective about what it means to be a student in Mankato and in the U.S. and the importance of collaborating with people in other cultures.”

An Honors student majoring in chemistry with minors in math and German, Malecha constantly looks for ways to build his portfolio for graduate school. As a first-year student, his German professor presented him with information on Deutscher Akademischer Austausch Dienst (DAAD), the German academic exchange service that offers students the chance to work with research groups at universities and institutions across Germany. At the time, Malecha set it aside.

As he entered his sophomore year, he began seriously looking for research opportunities. Malecha pulled out the DAAD information and talked with his advisors, who encouraged him to apply. Malecha completed his application in January 2011 and in March was awarded the Research Internships in Science & Engineering (RISE) fellowship to Johannes Gutenberg Universität in Mainz, Germany. He was one of 305 undergraduates to receive a DAAD award, out of 1,670 students who applied.

During the summer, Malecha assisted German chemist Nils Stöbener with his doctoral research on the mobility of a specific nuclear waste product, Neptunium. Currently, Malecha explained, Germany is trying to decide what to do with its nuclear waste. One of the proposals is to bury it in salt repositories. Neptunium—a radioactive by-product of nuclear fusion—exhibits two oxidation states or species. Neptunium’s ability to leach is mainly determined by the species and its interaction with the host material—in this case, salt and the surrounding clay. Malecha assisted Stöbener with the development of a method to identify different Neptunium species at the ultratrace level. The purpose of the research is to eventually determine whether or not measurable amounts of radioactive waste leak out of the salt-buried Neptunium.

In addition to a prestigious internship feather in his cap, the summer provided Malecha with unique research credentials. “Due to U.S. regulations nuclear research is not an option for undergraduate students here,” he said. “Working fairly independently, I gained invaluable analytical and practical skills. I wanted to be sure what I dumped down the drain was OK to dump down the drain.”

The benefits of Malecha’s summer in Germany extend beyond the lab. As a self-described introvert who often chose studying over socializing, the experience pushed him out of his comfort zone.

“Sometimes it is good to go out of your comfort zone. Sometimes you have to push yourself. Sometimes you need the push from outside,” he said. “When I talked to my professors, they encouraged me to go for it. In Germany, I was far away from my established support system and I needed to figure things out for myself, which translated into a pragmatic approach in both my professional and personal life.”

When asked if he had any advice for other students interested in international research, Malecha said, emphatically, “Do it! It makes you look at the world in a different way.”
Associate professor of communication studies Kristen Cvancara’s participation in an international research team will add a sibling communication component to a Finnish project titled “Mental Violence in Communication Relationships.” Cvancara will gather information from siblings about whether or not their communication patterns are linked to instances of bullying or victimization in school contexts.

If a person spends any time around siblings, eventually one would hear comments ranging from something akin to “I’m gonna get you!” all the way to “Here, let me help you.” Kristen Cvancara, associate professor of communication studies, is uniquely interested in the kinds of messages shared between siblings. So much so that she applied for and received a Fulbright grant to study the topic internationally.

“Sibling relationships are so complicated. It is often the longest relationship in our life—longer than the relationship we have with our parents, spouse, or children,” said Cvancara. “Sibling relationships, interactions, and attachments greatly affect how people move forward in adult relationships.”

In January 2012, Cvancara will travel with her family to Finland to collaborate with Maili Pörhölä, leader of the longitudinal study on bullying behavior titled “Mental Violence in Communication Relationships.” Researchers from Estonia and Australia will also join Cvancara and Pörhölä.

Pörhölä and Cvancara first collaborated during Cvancara’s doctoral research on verbal aggression. For the past five years, Cvancara has had an open invitation to teach in Finland. When the opportunity arose for sabbatical, Cvancara decided the best way to get to Finland was as a Fulbright scholar. She went to work to find a connection between Pörhölä’s research on bullying and her own new interest in sibling communication.

Cvancara’s interest in sibling communication was piqued while collaborating with a Mankato graduate student. “When I realized that nobody had linked up sibling communication behavior with either the victimization of bullying or bullying itself, a light bulb went off and I knew that was the direction I wanted to go,” said Cvancara.

Her research will add a sibling communication component to Pörhölä’s project. Specifically, the component will gather information from siblings about whether or not their communication patterns are linked to instances of bullying or victimization in school contexts.

While the main study includes an extensive online survey in Finland, Cvancara plans to develop a separate survey focused on sibling communication behaviors and experiences with bullying, either as a victim or an aggressor, for U.S. college students. In addition, Cvancara will teach two classes at the University of Jyväskylä: Family Communication and Research Methods.

At times, Cvancara feels a bit overwhelmed with the idea of conducting international research, teaching in...
Nearly two decades have passed since the fall of apartheid in South Africa. And although the people there still feel the weight and legacy of its oppression, things are changing. South Africa is a country full of hope, innovations, as well as national conversations about race, gender, sexual identity and class.

According to Scott Fee, associate professor of construction management at Minnesota State Mankato, everything is on the table. And that makes his collaboration with researchers in South Africa especially exciting. “The situation opens potential for research regarding human rights and safety and sustainability in built environments that just doesn't show up in the U.S.,” said Fee.

Fee has visited South Africa seven times: for conferences; as a leader for study abroad programs; to help develop curriculum for Eden Campus—a tertiary business school; and as a visiting professor at Nelson Mandela Metropolitan University (NMMU).

His interest in other cultures inadvertently began in high school when he attended a Rotary Exchange program meeting in an effort to avoid algebra class. “I didn’t like algebra very much. I wasn’t very good at it,” said Fee. “I heard an announcement for ‘blah, blah, blah’ during fourth hour, so I went. I didn’t really care about the topic.”

It turns out he found the topic of student exchange interesting. While in Australia on the Rotary Exchange program, Fee met South African Steve Carver, who became a lifelong friend. Years later, when Fee was teaching construction management in Mankato and considering Fulbright applications, Carver invited him to work on a new project in South Africa—Eden Campus. After hearing Carver give a presentation on his idea for Eden Campus, Fee was hooked and signed on to help almost immediately.

Eden Campus is South Africa’s first green business school and serves rural South African youth, “who,” said Fee, “even if they graduated at the top of their high school class, would go to work as a day laborer for a few dollars a day. It is a tertiary school with the goal of teaching students skills they can take back to their community.”

After several trips to South Africa, Fee and his family have developed real friendships. Most recently, Fee was invited by the Director of International Education at Nelson Mandela Metropolitan University to serve as a visiting professor. Fee spent six months teaching at NMMU in Port Elizabeth.

NMMU has a large School of the Built Environment that offers construction management degrees from undergraduate to doctorate. Fee serves on several NMMU theses and dissertation committees and reviews faculty publications for conferences. “I learn a lot about what is happening with research in built environments in South Africa. Many of the topics revolve around safety and housing—topics that directly affect their community,” said Fee. “I also review NMMU faculty research for conference presentations.”

In January 2012, Fee will return to South Africa with a group from Minnesota State Mankato that includes representatives from administration, the Department of Social Work, and the office of International Programs. The group will visit NMMU, Eden Campus, and the University of Fort Hare where social work faculty member Christine Black-Hughes has placed student interns. The goal is to use the current relationships to build deeper partnerships for international exchange and research.

Fee and colleagues from Mankato have presented research on international service learning and models for short-term study abroad. Fee knows first-hand how the international experience can alter the direction of one’s life. It is unlikely that he would encourage any of his students to skip class, but many people in South Africa are grateful for that fateful day in 1986, when Fee chose the ‘blah, blah, blah’ presentation over algebra.
Whether a person likes the system or not, special education in the United States is a well-oiled process. First, parents, teachers, and/or school officials identify struggling students. Next, school psychologists assess student skills and behaviors using various tools. Finally, teachers and classroom aides implement a series of evidence-based interventions, often using computers and other technologies.

In Belize, special education is still very much in its infancy. Until 2009, on the small northeastern island town of San Pedro, school psychology services were practically unheard of. That is, until doctoral students from the school psychology program at Minnesota State Mankato visited.

For three weeks each in 2009 and 2010, Mankato students and faculty lived and worked on the Ambergris Caye. In that time, they assessed 92 San Pedro students, wrote 92 intervention plans and reports, led several teacher training sessions, participated in numerous parent meetings, and met with various members of the Belize Ministry of Education and top administrators at the University of Belize in Belmopan.

The Mankato group spent time building trust and describing the role of the school psychologist. Katlyn McKenzie, doctoral candidate, traveled to Belize both years. “We explained that we work with students who do not respond to what their teachers are doing in the classroom, either those students who have behavioral problems or those who, academically, are just not catching on,” said McKenzie. “Our job is to work with those students, identify the problem, develop concrete goals, and create an intervention plan.”

After the first year, Dan Houlihan, program coordinator of Minnesota State Mankato’s school psychology doctoral program, noted a difference. “The second year, people anticipated that we were coming and it was much easier to get things going,” said Houlihan.

Houlihan was instrumental in getting the program started. During a family vacation, he visited some schools and formulated an idea. However, Houlihan...
The world of finance and investments is complicated. Perhaps that is why so many people avoid it. However, the layers of complexity and their effect on daily life served as motivation for Hyuna Park, assistant professor of finance at Minnesota State Mankato. Her research separates the layers and investigates the players and the processes specifically related to hedge funds. Park recently challenged the traditional risk measure suggested in the Nobel Prize winning modern portfolio theory.

According to Park, traditional risk measures developed for stocks and mutual funds do not work well for predicting hedge fund failure. Her idea focuses on the downside risk in hedge fund returns.

Trained as an engineer, Park followed an unusual path to finance. She began her professional career in 1997 as a chemical engineer with the Korean government working with other disciplines to set policy. At the time, Korea experienced an economic situation similar to the U.S. Lehman Brothers’ bankruptcy and subsequent $700 billion bailout in 2008. Large banks and corporations were under financial distress and many people lost their jobs.

“The Korean economic market struggles inspired Park to find out more about the world of finance. “Who was behind that kind of mess?” she asked, “Who were the players responsible for the financial crisis?” Park wanted to understand how and why financial markets affect everyone’s life—from employment to housing—so she went back to school to learn more.

Park studied finance and received her Ph.D. from the University of Massachusetts (UMASS), Amherst in 2007. It was there she developed her specific interest and expertise in hedge funds at the Hedge Fund Research Center at UMASS. “Over the last 10 years, I have increased my understanding of hedge funds significantly,” said Park.

During her first three years in Mankato, Park poured over hedge fund data from 38 countries and found something provocative. “I found that the modern portfolio theory does not work well for hedge fund portfolios,” Park said.

But her curiosity did not allow her stop with the knowledge that the theory didn’t always work. Park kept studying to find a solution. ”Because of hedge funds’ regulatory freedom and unique trading strategy,” said Park, “I suggested using a different risk measure for hedge funds.” It was a bold initiative. She found that a new risk measure that considers the downside risk works better than traditional risk measures for predicting hedge fund failure.

Park’s research attracted international attention and garnered invitations for international presentations in 2011. She was one of six Korean finance experts working in the U.S. invited to present at the Korean Capital Market Institute and Korean American Financial Association Conference. Park also presented in Portugal at the European Financial Management Conference.

Additionally, Park had a paper published in the Journal of Financial and Quantitative Analysis and was asked by Sol Waksman, president of Barclay Hedge (an alternative investment database) for permission to reprint her paper in The Barclay Insider Report.

“I am very proud of my research. It is well respected in academia, but, perhaps even more rewarding,” said Park, “is that the practitioners are interested in my research.”

Providing practical information is important to Park because of the way financial markets influence everyone’s life. Retirement plans commonly give employees responsibility for selecting the types of investments in which the retirement plan funds are allocated. In order to make informed choices, people need a better understanding of the financial markets.

“My long-term goal is to acquire resources and use technology to provide finance education for a general audience, not just for finance majors,” said Park. “These days, understanding the principles of financial markets is important for everyone.”

MEASURING THE DOWNSIDE
another country, and helping her family adjust to living in another culture. As a person who appreciates a plan, she said it is a bit scary not knowing exactly how things will turn out. “But then I think,” she said, “What will I get if I don’t try?”

That attitude motivated her to talk to others on campus with a history of international experiences and Fulbright awards. She asked questions of her colleagues and then went back and asked more questions.

“People want to support you,” Cvancara said. “There are always obstacles. If you want to focus on that, you won’t get very far. I know this experience will make me a much better professor.”

Depending on her findings, Cvancara hopes her new research will have practical applications such as helping practitioners (social workers, therapists) identify communication markers, understand causes of behavior, and develop strategies to help make life better for their clients. Eventually, she plans to provide direct resources that help parents understand the significance of the sibling relationship and help parents foster empathy and teamwork among siblings.

“I appreciate the acceptance and value that Minnesota State Mankato places on applied research and applied learning,” said Cvancara. “It wouldn’t be possible without the generosity of donors like the Fisher and Paradis families, who allow us to use their Blue Tang resort as a base,” said Houlihan.

The students in San Pedro typically receive very little specialized service or attention. It is somewhat of a sink or swim education system. And the situation presents cases that school psychology students would not see in the U.S.

For example, McKenzie was nearly halfway through an assessment when she realized the child she was testing was probably legally blind. Remote areas of Belize do not offer routine hearing and visual screenings. “So we had to think on our feet and create visual tests, using ideas from some of our classes,” said McKenzie.

“In the U.S., it is not typical for a school psychologist to test vision.”

All of the experiences in Belize help the Mankato school psychology students become better observers and practitioners. Their creativity and research skills are put to the test to find evidence-based interventions on site. “Many of the interventions used in the U.S. require classroom aides, expensive curricula, specialists, or computer-assisted programs—things not available in Belize,” said McKenzie.

“Practicing in Belize strengthened my abilities as a problem solver, it broadened my views regarding special education, and it made me a stronger practitioner,” said McKenzie. “It was a great service-learning experience. Because the island does not have any service like school psychology, my skills were appreciated tenfold.”

Houlihan said the program and his students serve a vital role in the San Pedro schools. “If we can continue to serve a similar number of students as we have in the past two years, we can do much to fulfill the role of a full-time school psychologist, and this might lead to better opportunities for many of the children of San Pedro,” he said. “It is an unusual situation and it provides a unique opportunity for our students.”

Got Photos? Faculty members who have high-quality digital photographs of recent research or creative projects are encouraged to submit them to the College of Graduate Studies and Research for inclusion in upcoming issues of FRONTIERS. Photographs should be at least 200 dpi and should be accompanied by a brief caption describing the project and the photo. E-mail photographs (in jpg or tif format) to barry.ries@mnsu.edu.
The Al Sorouh American School in Abu Dhabi is piloting the restructuring of education for the United Arab Emirates (UAE). Two student teachers from Minnesota State Mankato and one teacher on special assignment from LeSueur-Henderson (one of the K-12 partner districts) traveled to UAE in October 2011. Team members provided modeling and instruction on American-style education strategies. The assignment was made possible through the connections of Emeriti President Margaret Preska.

Photo by Carol Werhan