# IT'S HAPPENING AT STATE

September 10, 2008
NDSU

# NDSU receives grant to study biomaterials industry

A consortium led by NDSU economists in the Department of Agribusiness and Applied Economics has been awarded an \$800,000 grant to further develop and commercialize the technology to produce biobased products.

The North Dakota Industrial Commission awarded the grant after being reviewed by the Renewable Energy Council.

"Our initial studies indicate that we can use biomass feedstocks, such as wheat straw, to create ethanol and cellulose nanofibers (very small fibers)," says F. Larry Leistritz, NDSU agricultural economist and principal investigator in the new study. "The nanofibers would be used to make biocomposites that could substitute for fiberglass and plastic in many applications, such as automotive parts and furniture."

In this phase of the study, the technical and economic feasibility of building a pilotscale production facility will be determined. Cellulose nanofibers and composite materials made with nanofibers also will be evaluated.

"We will prepare a strategic business plan for the integration of public and private sector resources to build a pilot plant," says Nancy Hodur, NDSU economist and co-principal investigator. "The plan will detail the likely nature of operations for a corporate entity and examine potential markets, capitalization requirements and projected financial performance."

A key partner in the project is MBI International, a wholly owned subsidiary of the Michigan State University Foundation. MBI International is leading efforts in process and product development. Bernie Steele, MBI International director of operations, will serve as principal investigator for the company. Farzaneh Teymouri, MBI International senior engineer, will direct the technical operations. Lawrence T. Drzal will direct work at the Michigan State University Composite Materials and Structures Center under a subcontract to MBI International.

"By developing the technology to produce a valuable co-product, such as nanofibers, from what would otherwise be a low-value residue from the ethanol producing process, the project has substantial potential to enhance the economic attractiveness of building biorefineries that use cellulosic materials, such as wheat straw," Leistritz says. "The successful completion of the project will increase the probability of near-term development of North Dakota's biomass resources."

# President's Diversity Council accepting applications for support of campus events

The President's Diversity Council strives to provide a climate where there is an open and free exchange of ideas rooted in civility and a respect for the contributions of all those in our community. The council is accepting applications for providing appropriate support, including endorsement or joint sponsorship of campus events that further this mission.

Sponsored events may receive funding for up to half of the cost of an event with a maximum of \$1,000 in accordance with available funds and the guidelines provided. Applications can be submitted at <a href="https://www.ndsu.edu/diversity/documents.html">www.ndsu.edu/diversity/documents.html</a>. Click on the Diversity Council Funding Guidelines and Application.

#### **NEXT ISSUE**

Publication date: Wednesday, Sept. 17 Submissions due: noon Sept. 11

#### SEND SUBMISSIONS TO THE EDITOR

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Published by the Office of the Vice President for University Relations.

# International Water Institute receives grant from YSI Foundation

The Tri-College University International Water Institute received a \$5,000 grant from YSI Foundation. The YSI Foundation is a non-profit organization that donates a portion of its profits to environmental causes as well as educational and charitable organizations. The funding will be used to assemble a multidisciplinary work group and to develop a template for applied research projects in Basin River Watch schools related to watershed science and management. The grant also will be used to hold training sessions to teach Basin River Watch teams how to best implement the template.

Basin River Watch, a school-based citizen volunteer program, monitors the surface water quality in the Red River of the North basin using professional equipment such as YSI Sondes, water samplers and transparency tubes. Starting in 1995 with four schools in the Minnesota portion of the basin, the program now includes 38 schools in Minnesota, North Dakota and Manitoba taking measurements at more than 200 sites.

The International Water Institute was formed after the devastating 1997 Red River of the North flood. The institute works at the grassroots level to implement educational and professional programs in watershed science. The institute partners with K-12 and community education, resource management professionals and decision makers in an effort to enhance leadership capacity and decision making in water quality issues affecting the Red River of the North basin.

### 4-H corn drying session held

4-H youth from Fort Berthold, N.D., learned about a traditional American Indian practice during a recent corn drying session. The Aug. 26 session featuring Hidatsa elder Tillie Walker was a collaboration of the Fort Berthold Extension office and Fort Berthold Community College.

According to organizer Cheyanne Erickson, Extension agent for 4-H Youth Development at the Fort Berthold Extension office, eight 4-H youth from third through eighth grade and parents Niki Baker and Karletta Fox participated in the event. Erickson acknowledged the efforts of college representatives Mary Fredericks, DJ Driver and Randy Dolan; Paula Bear of the Extension staff; and tribal representative Marle Baker.

"I was excited to see the multi-generational participation with the 4-H youth, their parents and Tillie all working together. However, none of that would have been possible without the collaborative efforts from both Fort Berthold Community College and the Extension Service," Erickson said. "I know the time, resources and partners provided a valuable learning experience for the kids, but more importantly provided an opportunity for them to learn a traditional skill and a positive adult/youth learning partnership."

Erickson said she is hopeful the partnerships will lead to future collaborative efforts.

# Technology Fee Advisory Committee seeks proposals

The Student Technology Fee Advisory Committee is seeking proposals aimed at improving the quality of education and campus life at NDSU through the use of technology. Students, faculty and staff are encouraged to submit proposed projects by 2 p.m., Wednesday, Oct. 1.

The student technology fee funds a broad range of projects designed to improve the information technology capabilities and services for students, faculty and staff. Proposals specifically addressing innovative uses of technology to improve instruction and student learning are encouraged.

To receive consideration, deliver 15 paper copies of the action plan to the Technology Fee Advisory Committee, c/o Bonnie Neas, vice president for information technology, IACC 206A, and submit an electronic copy of your action plan to Jeffery Gerst at jeffery.gerst@ndsu.edu. Go to www.ndsu.nodak.edu/tfac or contact Gerst via e-mail or at 1-8943 if you have questions.

#### PEOPLE

### Reynolds named editor-in-chief



Lawrence Reynolds, co-director of the NDSU Center for Nutrition and Pregnancy, has been named editor-in-chief of the Animal Science Image Gallery. He previously spent three years as editorin-chief of the Journal of Animal Science, the world's premier journal and leading source of new knowledge and perspective in animal sciences.

The Animal Science Image Gallery is housed at the U.S. Department of Agriculture's National Agricultural Library in Beltsville, Md. The gallery is designed to provide images, animations and video for classroom and outreach learning. To supplement the visual information, each file has a description and metadata including the origins and ownership for the image. Each file in the gallery has at least two peer reviews to optimize the image and its metadata, and to ensure that the information is sufficient and accurate.

The gallery is a collaborative project of the National Agricultural Library and American Society of Animal Science. The library manages the gallery Web site and the holdings after they are accepted. The American Society of Animal Science oversees the peer view process required of new submissions before they are accepted into the gallery.

Reynolds will serve as the second editor-in-chief, taking over from Harold Hafs, a long-time animal science professor at Michigan State University, East Lansing. Hafs was the lead investigator in establishing the gallery with funding from a U.S. Department of Agriculture grant.

## Eck to compete in Mustang Competition



Tate Eck, lecturer in the NDSU equine science department, was selected from hundreds of applicants to receive a wild mustang from Nevada. He will gentle the horse for the 2008 Extreme Mustang Makeover Competition in Fort Worth, Texas. Sponsored by the Mustang Heritage

Foundation, the second annual competition will be held Sept. 18-21 and includes an in-hand course as well as an under-saddle course.

"This was an event the likes of which the Bureau of Land Management had never seen," said Patti Colbert, executive director of the Mustang Heritage Foundation. "It was standing room only and that created a complete sense of exhilaration and admiration for the mustangs and trainers. We are now preparing for the 2008 competition and have more than doubled the size with 150 horses and 150 trainers plus another 200 yearlings matched with young trainers and their families. The overall prize money has also increased to \$70,000."

Nearly 26,000 Mustangs roam federal lands across the country. In order to manage the herds and maintain both land and herd health, the Bureau of Land Management oversees the adoption of wild horses and burros through public adoptions held throughout the United States. Last September, through the event, every competing horse was adopted at an average price of \$2,300. Since 1973, more than 219,000 wild horses and burros have been adopted.

# Prichard named women's basketball director of operations



NDSU head women's basketball coach Carolyn DeHoff announced the addition of Alison Prichard as the women's basketball director of operations on Sept. 3.

"Hiring Alison is a culmination of a staff that is on the rise. I couldn't be more excited about her

vision and commitment for the position and NDSU," said DeHoff. "Her greatest asset is that she wants to give back to the game of basketball. She possesses both intelligence and an eagerness to learn, what more can you ask for, especially in the director of operations position.'

A native of Apple Valley, Minn., Prichard was a four-year letter winner and two-year starter for Princeton University from 2004-08. She was team captain as a senior and tied the school's career record for games played (112). Prichard earned a bachelor's degree in psychology in June. She wrote an 80-page senior thesis on coaching behaviors and philosophies based on in-depth interviews of 17 Princeton University head coaches.

### Jones to present 'Animal Stories' recital



Robert Jones, associate professor of music, will present a faculty recital on Thursday, Sept. 25, in Beckwith Recital Hall. The recital is free and open to the public.

Titled "Animal Stories," the recital will feature a

variety of German, British, French and American songs about animals. The highlight of the recital will be the animal songs of Emmanuel Chabrier and "Histoire Naturelle" by Maurice Ravel. Other songs include "I Bought Me A Cat," arranged by Aaron Copland, "Die Forelle (The Trout)" by Franz Schubert and "St. Anthony's Sermon to the Fishes" by Gustav Mahler. Most of the songs are humorous, while others are observations about specific animals or are metaphorical.

Jones also will present the recital on Tuesday, Sept. 23, at Dickinson State University and Thursday, Oct. 2, at Valley City State University. For additional information, contact the Division of Fine Arts at 1-7969.

# NDSU researchers recognized for top-cited scientific articles

Six scientific articles by researchers in the Center for Nanoscale Science and Engineering and Department of Coatings and Polymeric Materials at NDSU appear among the most cited articles published in Volume 23 of Biofouling: The Journal of Bioadhesion and Biofilm.

Most-cited articles are based on data from Thomson Reuters Journal Citation Report 2008. When scientists conduct research, they often refer to groundbreaking work published by other researchers as they conduct experiments and publish results of research that add to the body of scientific knowledge.

The most cited articles and authors include: "Laboratory screening of coating libraries for algal adhesion," written by Franck Casse, University of Birmingham, United Kingdom; Eraldo Ribeiro, Florida Institute of Technology; Abdullah Ekin and Dean Webster, NDSU; and James Callow and Maureen Callow, University of Birmingham, published July 2007.

"Combinatorial materials research applied to the development of new surface coatings V. Application of a spinning water-jet for the semi-high throughput assessment of the attachment strength of marine fouling algae," written by Franck Casse, University of Birmingham; Shane Stafslien and James Bahr, NDSU Center for Nanoscale Science and Engineering; and John Finlay, James Callow and Maureen Callow, University of Birmingham, published March 2007.

"Adhesion study of silicone coatings: the interaction of thickness, modulus and shear rate on adhesion force," written by Jongsoo Kim, Bret Chisholm and James Bahr, NDSU Center for Nanoscale Science and Engineering, published March 2007.

"Combinatorial materials research applied to the development of new surface coatings III. Utilisation of a high-throughput multiwell plate screening method to rapidly assess bacterial biofilm retention on antifouling surfaces," written by Shane Stafslien, Justin Daniels, Bret Chisholm and David Chistianson, NDSU Center for Nanoscale Science and Engineering, published January 2007.

"Combinatorial materials research applied to the development of new surface coatings IV. A high-throughput bacterial biofilm retention and retraction assay for screening fouling-release performance of coatings," written by Stane Stafslien, Justin Daniels, Bret Mayo, David Chistianson, Bret Chisholm, Abdullah Ekin and Dean Webster, NDSU Center for Nanoscale Science and Engineering, and by Geoffrey Swain, Florida Institute of Technology, published January 2007.

"Mini-review: Combinatorial approaches for the design of novel coating systems," by Dean Webster, NDSU Department of Coatings and Polymeric Materials, and Bret Chisholm and Shane Stafslien, NDSU Center for Nanoscale Science and Engineering, published June 2007.

The Combinatorial Materials Research Laboratory at NDSU's Center for Nanoscale Science and Engineering uses robotics and serves among the most well-equipped academic laboratories in the world for conducting polymer and surface coating research using a combinatorial approach. The lab also uses instrumentation built in-house by engineering staff at NDSU. The lab is involved in research projects sponsored by both the U.S. government and industry and conducts ongoing research in marine coatings, antimicrobial coatings, bioactive polymers and coatings, coatings for corrosion protection, and hybrid organic-inorganic coatings. In addition, the Bioactive Materials Research Laboratory at the Center for Nanoscale Science and Engineering researches biomedically relevant coatings and materials, as well as coatings designed to be used in the marine environment. www.ndsu.edu/cnse

At the Center for Nanoscale Science and Engineering, Chisholm serves as senior research scientist who directs the Combinatorial Materials Research Laboratory; Stafslien serves as senior research specialist; Bahr, senior research engineer; Christianson, Daniels, and Mayo as research specialists; and Webster, professor, NDSU Department of Coatings and Polymeric Materials.

Biofueling is an international, multi-disciplinary journal providing a forum for publishing pure and applied work on microbial, plant or animal fouling and its control, as well as studies of all kinds on bioadhesion and biofilms, including biofouling of medical and dental equipment and implants.

#### EVENTS

# NDSU to host college and career fair

NDSU will host the annual Fargo-Moorhead College and Career Fair on Monday, Sept. 15, from 9 a.m. to 11:30 a.m. and 6 p.m. to 8 p.m. at the Fargodome.

Nearly 1,500 students, parents and counselors from approximately 55 area high schools have been invited to attend. About 100 post-secondary institutions and military organizations will participate in the Fargo-Moorhead program.

The Minnesota Association for College Admission Counseling and the Dakota Association for College Admission Counseling-North Dakota Council are cooperatively sponsoring the program.

For more information, contact the NDSU Office of Admission at 1-8643.

# Bastow-Shoop to give World i View presentation



"India – A Nation of Contrasts," a presentation by Holly Bastow-Shoop, professor of apparel, design, and hospitality management, is scheduled for Thursday, Sept. 18, from noon to 1 p.m. in the Memorial Union Century Theater. Her presentation is part of the World i View speaker series.

Bastow-Shoop

Bastow-Shoop traveled to Delhi, Mumbai, Agra, Bhuj, Jodhpur, Jaipur, Osian, Jaisalmer and Varanasi in northern India while participating in a Fulbright-Hays Group Project to India in January 2007 and 2008. With vivid photography, Bastow-Shoop will explore current issues related to the rapid growth and development being experienced in India today, including contrasts among groups and regions in India.

The World i View speaker series is sponsored by the Office of International Programs. For more information, contact Samudra Kugel at 1-7895 or *samudra.weeratunge-kugel@ndsu.edu*.

# Office of Human Resources and Payroll to sponsor fall blood drive

The NDSU Office of Human Resources and Payroll will host a United Blood Services fall blood drive on Thursday, Sept. 18, from 1 p.m. to 5 p.m. outside across from the west entrance of the Memorial Union. The blood drive is open to all faculty, staff and students.

To make an appointment, contact Victoria Pizana at 1-8961 or *victoria.pizana@ndsu.edu* or go to *www.bloodhero.com* and enter sponsor code: staff. To donate blood you must be at least 17 years old, weigh 110 lbs. and be in good health.

# Astronaut presentation scheduled

Apollo 15 astronaut Al Worden will present NDSU junior Matthew Wold with a \$10,000 scholarship from the Astronaut Scholarship Foundation during a ceremony, Thursday, Sept. 11, at 10 a.m. in the Memorial Union Plains Room. The award ceremony will coincide with a presentation by Worden and is free and open to the public.

Worden, who chairs the Astronaut Scholarship Foundation, served as command module pilot on the 1971 Apollo 15 mission, during which he orbited the moon with crewmates Dave Scott and Jim Irwin. On the homeward journey, Worden took the farthest-out space walk, moving along hand rails on the outside of his spaceship to retrieve film cassettes from the two moon-mapping cameras. He was inducted to the U.S. Astronaut Hall of Fame in 1997.

The Astronaut Scholarship is the largest monetary award given in the United States to science and engineering undergraduate students based solely on merit. Nineteen of the awards are disbursed annually to worthy college students in a science or engineering field. Wold is majoring in agricultural and biosystems engineering, focusing his research on cellulosic ethanol.

### Safety training sessions scheduled

The dates for the Supervisor and Baseline Safety Training sessions have been scheduled for September and October. All sessions will be held in the Memorial Union.

Supervisor Safety Training will be held in the Meadow room at 3 p.m. on Tuesday, Sept. 23, and Tuesday, Oct. 28.

Baseline Safety Training is scheduled Thursday, Sept. 25, at 9 a.m.; Friday, Sept. 26, at 2:30 p.m.; Thursday, Oct. 30, at 9 a.m.; and Friday, Oct. 31, at 2:30 p.m. All sessions will be held in the Memorial Union, Room of Nations.

Both courses are mandatory and must be completed on an annual basis. If you cannot attend any of the classes, you are encouraged to complete the training online at <a href="https://www.ndsu.nodak.edu/ndsu/police\_safety/safety/Presentations.htm">www.ndsu.nodak.edu/ndsu/police\_safety/safety/Presentations.htm</a>. At the end of the training, submit the short quiz to the Safety Office as proof of your compliance.

For more information, contact Jennifer Baker, loss control and claims specialist, at jennifer.baker@ndsu.edu.

### Colloquia series announced

The history, philosophy and religious studies faculty have announced their fall 2008 colloquia series. The talks include:

Annalyssa Murphy of Salem State College will present "Dissent along the Borders of the Fourth World: Native American Writings as Social Protest" on Sept. 19. The presentation is part of the Ethics of History program supported by the Northern Plains Ethics Institute.

David Kilroy of Nova University will present "Irish and Nazi Relations during WWII" on Oct. 3.

Charles Vollan of South Dakota State University will present "American West" on Oct. 24.

William Caraher of the University of North Dakota will present "Dream Archaeology or the Archaeology of Dreams" on Nov. 14.

The fall colloquia will be held in FLC 122 from 3 p.m. to 5 p.m. All members of the university and local community are invited to attend the lectures and question sessions following each presentation.

For more information, contact Dennis Cooley at 1-7038 or dennis.cooley@ndsu.edu.

# NDSU Women's Club to hold 2008 Fall Social Event

The NDSU Women's Club is hosting the 2008 Fall Social Event on Monday, Sept. 15, at 6:30 p.m. in the NDSU Alumni Center Atrium. Refreshments will be provided.

Mark Piehl, archivist at the Clay County Historical Society, will present "Preserving Your Family Photos."

The event is free and open to the public.

#### Arts and Humanities Summit set

The 2008 fourth semi-annual Arts and Humanities Summit will be held Oct. 9-10 at Bismarck State College. The students and faculty of the North Dakota University System meet every two years to celebrate the arts and humanities, and to share their works with the public.

There are 40 events planned on the BSC campus with speakers, artists, musicians, philosophers, historians, humanists and experts. There will be live performances, a visual arts exhibit, scholarly papers and readings. The public is invited to experience what is produced, taught and studied at the state's colleges and universities.

On Oct. 9, writer Sherman Alexie will be the keynote speaker at the Belle Mehus Auditorium in downtown Bismarck. A writer from Seattle, he has received several honors, including the 2007 National Book Award for Young People's Literature, the 2007 Western Literature Association Distinguished Achievement Award and the 2005 Pushcart Prize for the poem "Avian Nights."

Acts from several campuses will perform a seamless Collage Concert, scheduled for Oct. 10, also at the Belle Mehus Auditorium.

Visit www.bismarckstate.edu/summit for details or to register for the summit.

#### SHORTS AND REMINDERS

#### **Positions Available**

Positions open and screening dates through the Office of Human Resources, SGC Building, 1919 N. University Drive:

Lead Caterer/#00023314
Dining Services – Memorial Union
12 months, Monday to Friday, with weekends
\$9+/hour
Open until filled

Medical Records and Computer Support Assistant/#00021427 Student Health Services \$23,000+/year Sept. 10

Employment Records Technician /#00023967 Human Resources/Payroll \$26,000+/year Sept. 11

Bison Connection Associate/#00025912 Bison Connection \$26,000+/year Sept. 16

Police Officer/#00018749 University Police amd Safety \$37,000/year Sept. 16

Livestock Research Technician Carrington Research Extension Center \$23,000+/year Sept. 11 Assistant Director of Seedstocks/#00020885 Plant Sciences 40,000+/year Sept. 15

Research Specialist Plant Sciences \$28,000+/year Sept. 15

Crop Quality Specialist/#00023981 Northern Crops Institute \$45,000+/year Oct. 3

Desktop Support Specialist/#00018950 Information Technology Services \$36,000+/year Sept. 12

Equity and Diversity Center Outreach Coordinator/#00026193 Equity and Diversity Commensurate with experience Sept. 18

Web Specialist Upper Great Plains Transportation Institute \$32,000+/year Open until filled

Web Technology Specialist/#00021062 Ag Communications \$43,000+/year Open until filled

Programmer Analyst NDUS ConnectND Fargo \$50,000+/year Open until filled

Position openings also are available through the NDSU Web site at www.ndsu.edu/jobs.

### Annual reminder of NDSU Policy 345

#### Research involving human participants:

NDSU is committed to protecting the rights, safety and welfare of all participants of its human research projects. This commitment has been formalized in a Federalwide Assurance with the Office of Human Research Protections and the Department of Health and Human Services and also includes applicable research regulated by the Food and Drug Administration. Among other requirements, these protections ensure that risks to participants will be minimized, risks will be reasonable in relation to anticipated benefits, recruitment procedures will be fair, subjects will be sufficiently informed and able to make a voluntary choice, their privacy and confidentiality will be respected and extra protections will be in place for vulnerable groups.

#### **Applicability:**

Human subjects research may be conducted in many diverse fields and disciplines, and includes projects that will involve interventions or interactions with individuals, and/ or obtaining information about them (directly or indirectly) for purposes of contributing to generalizable knowledge. It also would include clinical investigations of drugs, medical devices, biologics, food additives and other articles regulated by the Food and Drug Administration.

#### **Institutional Review Board review:**

The terms of NDSU's Federalwide Assurance specify that the Institutional Review Board prospectively review all proposed NDSU research involving human participants to ensure that their rights and welfare will be protected. The board's oversight responsibility includes those human research projects qualifying for "exemption," which undergo a similar review process. The board also is responsible for oversight of continuing research, resolving participant concerns, reporting noncompliance and implementing corrective actions, as well as providing guidance to the campus community regarding human research protections.

#### **Fall semester training sessions:**

An initial and three-year refresher training requirement is in place for investigators, co-investigators, as well as those assisting with human research projects. On-campus sessions have been scheduled for September and October; the schedule is listed on the Institutional Review Board's Web site. Register at ndsu.irb@ndsu.edu. Other training options, such as online courses, also are available.

#### **Quality improvement efforts:**

Quality improvement of NDSU's human research protection program has been ongoing. Part of this effort will include revision of the Institutional Review Board Guidelines to enhance online usability and include additional procedural details. Most operating procedures will remain the same. Recently approved standard operating procedures can be viewed on the Institutional Review Board Updates Blackboard course site. Comments are welcome from the research community via the discussion board.

For any questions about this policy, contact Teri Grosz, Institutional Review Board director, Office of Sponsored Programs Administration, at 1-8908 or go to ndsu.irb@ndsu.edu.

#### CALENDAR

# **September**

- 10 Soil science seminar "The Role of the Great Plains Cooperative Ecosystem Studies Unit in Fostering Research in the Great Plains," Gary Wilson, research coordinator at the Great Plains Cooperative Ecosystem Studies Unit, National Park Service, 3 p.m., Loftsgard 114
- 12 Psychology Colloquium "Assessing Memory for Colour," Pauline Pearson, University of Winnipeg, 3:30 p.m. to 5 p.m., Memorial Union Century Theater
- 16 Chemistry and Molecular Biology seminar –
  "Epigenetic Regulation of Melanoma Growth
  and Motility by Melanoma Proteoglycan," James B.
  McCarthy, University of Minnesota Masonic Cancer
  Center, Minneapolis (co-sponsored by the National
  Institutes of Health Center for Protease Research),
  3:30 p.m., Memorial Union Hidatsa room
- 17 YMCA of NDSU Brown Bag "Elections and Electrons: Freedom of the 'Press' Meets the Voting Booth," Eric Rail, assistant professor of political science, noon, Memorial Union, Arikara room
- 17 Soil science seminar "Renewable Energy and Biomass Utilization in North Dakota," Chris Zygarlicke, deputy associate director for research at the Energy and Environmental Research Center, 3 p.m., Loftsgard 114
- World i-View "India: A Nation of Contrasts,"
  Holly Bastow-Shoop, professor of apparel, design,
  and hospitality management, noon to 1 p.m.,
  Memorial Union Century Theater
- 18 Chemistry and Molecular Biology seminar –
  "Excited Electrons in Interfacial Chemistry,"
  Alec M. Wodtke, professor and chair of the
  Department of Chemistry and Biochemistry at the
  University of California Santa Barbara, 3:45 p.m.,
  Dunbar 152
- 18 Career Center Meet the Firms, 4 p.m. to 7 p.m., Memorial Union Great Plains Ballroom
- History, philosophy and religious studies colloquia

   "Dissent Along the Borders of the Fourth World:
   Native American Writings as Social Protest,"
   Annalyssa Murphy, Salem State College, 3 p.m. to 5 p.m., FLC 122
- 20 F/M Communiversity "Great Decisions: Foreign Policy Discussion: Defense and Security," Rebecca Moore, associate professor of political science at Concordia College, NDSU Memorial Union, 1 p.m. to 3 p.m., free and open to the public
- Volleyball vs. Oral Roberts, 7 p.m., Bentson Bunker Fieldhouse
- First day of autumn
- 24 Career Center Engineering and Tech Expo, 10 a.m. to 3 p.m., Fargodome

- 26 Psychology Colloquium "Quantity or Quality? The Distinction Between Number and Resolution in Visual Working Memory," Ed Awh, University of Oregon, 3:30 p.m. to 5 p.m., Sudro 27
- Volleyball vs. South Dakota State University, 7 p.m., Bentson Bunker Fieldhouse
- 29 Oct. 4 Homecoming week

#### October

- F/M Communiversity "Lincoln, Land and Liberty Symosium: Religion, the Civil War and Lincoln," John Helgeland, professor of history and religion, Christiansen Recital Hall Hvidsten Hall of Music, Concordia College, 7:30 p.m. to 9:30 p.m., free and open to the public
- 3 History, philosophy and religious studies colloquia "Irish and Nazi Relations During WWII," David Kilroy, Nova University, 3 p.m. to 5 p.m., FLC 122
- 3 Psychology Colloquium "Hypnosis, Pain and Virtual Reality," David Patterson, University of Washington, 3:30 p.m. to 5 p.m., Memorial Union Century Theater
- 3 Soccer vs. Southern Utah, 4 p.m., Ellig Sports Complex
- 4 Football vs. Southern Illinois (Homecoming), 1 p.m., Fargodome
- 10 Psychology Colloquium "Primed to Learn: Language Processing in Adults and Infants," Kyle Chambers, Gustavus Adolphus College, 3:30 p.m. to 5 p.m., Memorial Union Century Theater
- 10 Soccer vs. Oral Roberts, 4 p.m., Ellig Sports Complex
- 10 Volleyball vs. Indiana University Purdue University Indianapolis, 7 p.m., Bentson Bunker Fieldhouse
- 11 Football vs. Western Illinois (Trees Bowl), 3 p.m., Fargodome
- 11 Volleyball vs. Western Illinois, 7 p.m., Bentson Bunker Fieldhouse
- Soccer vs. Centenary, 1 p.m., Ellig Sports Complex
- 14 Career Center Agriculture Career Fair, 10 a.m. to 2 p.m., Memorial Union Great Plains Ballroom
- 14 F/M Communiversity "Great Decisions: Foreign Policy Discussion: Diplomacy," The Rev. Darin Johnson, campus pastor at NDSU's University Lutheran Center, University Lutheran Center Coffee House, 7 p.m. to 9 p.m., free and open to the public
- 17 Psychology Colloquium "Capacity Limitations in Visual Perception and Memory," Yuhong Jiang, University of Minnesota, 3:30 p.m. to 5 p.m., Sudro 27
- 17 Volleyball vs. University of Missouri Kansas City, 7 p.m., Bentson Bunker Fieldhouse

Non-discrimination Policy
North Dakota State University does not discriminate on the basis of race, color, national origin, religion, sex, disability, age, Vietnam Era Veterans status, sexual orientation, marital status or public assistance status. Direct inquiries to the Executive Director and Chief Diversity Officer, 205 Old Main, 1-7708.

**University Relations North Dakota State University** NDSU Dept 6000 PO Box 6050 Fargo, ND 58108-6050