NDSU | COLLEGE OF ENGINEERING

COLLEGE HAPPENINGS

January 25, 2022

FROM THE DEAN

Coping with Criticism

Faculty will soon receive the results from the NDSU Student Course Evaluation surveys from last semester. It is also the season for annual evaluations, where supervisors provide feedback on employee performance over the past year, sometimes with peer evaluations. In some cases, responses and comments from these surveys and assessments can be very positive and encouraging; but this feedback can be discouraging in other cases. While critical comments and feedback provide precious insights into addressable problems, we still feel it. As employees and educators (and in many different areas of our professional and personal life), we have to learn to deal productively with criticism. I remember as a new faculty member, I was advised by a seasoned professor that "You've got to have the skin of a rhino." After receiving comments from my first teaching evaluations, I thought, "I definitely don't have rhino (thick) skin…maybe I'll grow tick skin over the years." However, 20 years later, I still don't have thick skin—criticism still stings.

In a Forbes magazine article "How to Deal with Really Tough Criticism," the author describes five steps to dealing with criticism.

(1) *Feel the emotions, and then get over them*. While criticism stings, it is important, that after recognizing the emotions from any hurtful comments, that we then move forward in a positive way, not dwelling on the hurt.
(2) *Build a support network inside and outside of work*. If you received criticism, I encourage you to talk with your colleagues. For our junior faculty, that would include sharing your teaching evaluations with your faculty mentor. Likewise, non-work relationships can provide additional perspective and consolation.
(3) *Be self-aware*. We should be introspective and examine even those painful criticisms for the grain of truth to better our performance.
(4) *Serve a higher purpose*. We must maintain the belief that our work serves a higher purpose of educating a new generation of graduates to take on the engineering and societal challenges of the coming decades.
(5) *Maintain a sense of humor*. We need to be able to forget ourselves enough to focus on others. Not all of the criticism that we receive is true, sometimes the comments are revealing issues in the commenters own lives. As we become more secure in who we are, we can also find it easy to laugh at ourselves. As the Chinese proverb says, "Blessed are those who can laugh at themselves. They shall never cease to be entertained."

I think the most important thing is that, while we try to use constructive criticism to improve our performance, we don't let the negative criticism dampen our passion for our critical mission as a college: preparing innovative problem solvers and creating new knowledge to improve lives in North Dakota and beyond.

CONGRATULATIONS

Please let *College Happenings* know about honors, awards, new grants and other announcements so we can share them with other faculty and staff.

NEW HIRES

Lisa Watkins has joined the **Department of Civil, Construction and Environmental Engineering** as the Grants and Labs Coordinator.

UPCOMING EVENTS

Wednesday, January 26, **Project Implicit**. The ADVANCE Partnership Project is hosting a virtual session on implicit bias presented by Sylvia Perry, Associate Professor of Psychology at Northwestern University from Project Implicit. 11 a.m. – 12:30 p.m. Register Here.

Wednesday, February 9, **Spring Career Expo**. 11:00 a.m. – 3:00 p.m. at the FargoDome.

Wednesday, February 16, **NDSU Day of Honor**. The NDSU Day of Honor commemorates the lives of NDSU students, faculty, and staff who have passed away during the previous calendar year. 2:00 p.m. in the Oceti Sakowin Ballroom.

PRESIDENTIAL CANDIDATE INTERVIEWS

The North Dakota State University Presidential Search Committee has selected five candidates to come to Fargo for on-campus interviews beginning Monday, January 24. Candidates will meet with students, faculty, staff, alumni, friends, and campus and community leaders, with the search committee soliciting feedback from these key stakeholder groups.

Each candidate will present an open forum at the Memorial Union, Ballroom A, or accessible by Zoom. The hour-long open forums will begin at 10:30 a.m. Candidates will then be available to meet and greet the campus from 11:30 a.m. to noon. Open forums will be recorded and posted on the NDSU presidential search website.

The campus community will be able to provide anonymous feedback on each candidate through a five-question survey available from 4 p.m. on his or her first day until midnight on his or her last day. Feedback form links for each candidate and dates the survey is available are provided below.

The schedule for on-campus visits is as follows:

January 24 – 26, open forum January 26 at 10:30 a.m.
David Cook, Ph.D.
Vice Chancellor for Public Affairs & Economic Development
University of Kansas (at Lawrence)
David Cook feedback form, open January 24 at 4 p.m. until midnight January 26

January 25 – 27, open forum January 27 at 10:30 a.m.
Debra Larson, Ph.D.
Provost and Vice President of Academic Affairs
California State University (at Chico)
Debra Larson feedback form, open January 25 at 4 p.m. until midnight January 27

January 26 – 28, open forum January 28 at 10:30 a.m.
Michael Tidwell, Ph.D.

Immediate Past President
University of Texas (at Tyler)
Michael Tidwell feedback form, open January 26 at 4 p.m. until midnight January 28

January 31 – February 2, open forum February 2 at 10:30 a.m.
Hesham El-Rewini, Ph.D., P.E.
Provost and Senior Vice President of Academic Affairs
Marymount University (in Washington, D.C. area)
Hesham El-Rewini feedback form, open January 31 at 4 p.m. until midnight February 2

February 1 – 3, open forum February 3 at 10:30 a.m.
Mary Holz-Clause, Ph.D.
Acting Executive Chancellor
University of Minnesota (dual campus, at Morris and Crookston)
Mary Holz-Clause feedback form, open February 1 at 4 p.m. until midnight February 3

Following the on-campus interviews, the search committee will recommend an unranked slate of finalists to the State Board of Higher Education. The board will conduct final interviews on the NDSU campus on Wednesday, February 23, 2022, with the selection of the next NDSU president announced thereafter. It is anticipated that the new NDSU president will assume office in June 2022.

FUNDING OPPORTUNITIES

DoD ONR: Science & Technology for Advanced Manufacturing Projects

The focus of this Broad Agency Announcement (BAA) [N00014-22-S-B002] is primarily on projects that continue to advance the systems engineering approach needed for the design, fabrication, and manufacture of structural components to address challenges in system weight, performance, affordability, and / or survivability. The foundation of this approach should include the integration of materials information, captured in computational tools, with engineering product performance analysis and manufacturing-process simulation termed commonly as Integrated Computational Materials Engineering (ICME). From this foundation it is expected the integration of manufacturing process information and product performance information utilizing the full range of engineering and analytical tools, processes, and principles to improve efficiency and effectiveness of their integrated approach. The intent is to bring together materials designers, materials suppliers, product designers, and manufacturers to collaborate on the design, production, and commercialization of novel affordable, manufacturable systems. Projects may include basic and applied research, technology and component development, and prototyping, but may also focus on manufacturing supply-chain technical support and integration, workforce development, and manufacturing education.

Prior to preparing proposals, potential offerors are strongly encouraged to contact the ONR technical point of contact identified for this program.

This BAA will remain open through November 30, 2022

NSF: Faculty Early Career Development Program

CAREER: The Faculty Early Career Development (CAREER) Program [NSF 20-525] is a Foundation-wide activity that offers the National Science Foundation's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. Activities pursued by early-career faculty should build a firm foundation for a lifetime of leadership in integrating education and research. NSF encourages submission of CAREER proposals from early-career faculty at all CAREER-eligible organizations and especially encourages women, members of underrepresented minority groups, and

persons with disabilities to apply.

RCA is offering an NSF and CAREER Proposal Development Program during the 2022 Spring Semester. *Learn more >>*

NSF CAREER deadline: July 25, 2022

RECENTLY SUBMITTED PROPOSALS

- Danling Wang (PI). Smart Sensor for Disordered Eating Intervention and Weight Management with a Simple Breath. $50,000 from the National Institutes of Health. 03/01/2022 – 02/28/2023.
- Lu Liu (PI). Understanding the Impact of COVID-19 on Online Eating Disorders Forums. $49,999 from the National Institutes of Health. 03/01/2022 – 02/28/2023.

RECENT PUBLICATIONS

For 2022, 16 publications by authors with the College of Engineering affiliation have appeared in various journals, according to the ISI Web of Science and submissions from faculty. Here are some of the most recent publications:

- Ahsan, Mostofa, Sulaymon Eshkabilov, Bilal Cemek, Erdem Kucuktopcu, Chiwon W. Lee, and Halis Simsek. 2022. "Deep Learning Models to Determine Nutrient Concentration in Hydroponically Grown Lettuce Cultivars (Lactuca Sativa L.)." *Sustainability* 14 (1): 416. https://doi.org/10.3390/su14010416.
- B, Richter, Mace Z, Hays Me, Adhikari S, Pham Hq, Sclabassi Rj, Kolber B, et al. 2021. "Development and Characterization of Novel Conductive Sensing Fibers for In Vivo Nerve Stimulation." *Sensors (Basel, Switzerland)* 21 (22). https://doi.org/10.3390/s21227581.
- Covelli, Curtis, Shichen Yuan, David Grewell, and Klaus Schmidt-Rohr. n.d. "Structural Changes from Vibration Welding of Maple and Pine Woods Analyzed by Solid-State NMR." *Welding in the World*. Accessed January 18, 2022. https://doi.org/10.1007/s40194-021-01243-8.
- Lim, Siew Hoon, Yue Ge, Jennifer M. Jacobs, and Xinhua Jia. n.d. "Measuring the Economic Benefits of Advanced Technology Use for River Flood Forecasting." *Journal of Flood Risk Management*, e12781. https://doi.org/10.1111/jfr3.12781.
- Miao, Rui, Xiaoou Hu, Yao Yu, Qifeng Zhang, Zhibin Lin, Abdulaziz Banawi, and Ahmed Cherif Megri. 2022. "Experimental Study to Analyze Feasibility of a Novel Panelized Ground-Source Thermoelectric System for Building Space Heating and Cooling." *Energies* 15 (1): 209. https://doi.org/10.3390/en15010209.
- Miao, Rui, Xiaoou Hu, Yao Yu, Yan Zhang, Mark Wood, Gaylord Olson, and Huojun Yang. 2022. "Evaluation of Cooling Performance of a Novel Dual-Purpose Solar Thermal Collector through Numerical Simulations." *Applied Thermal Engineering* 204 (March): 117966. https://doi.org/10.1016/j.applthermaleng.2021.117966.
- Ullah, Al Habib, Kristopher L. Tomek, Charles Fabijanic, and Jordi Estevadeordal. 2021. "Dynamic Stall Characteristics of Pitching Swept Finite-Aspect-Ratio Wings." *Fluids* 6 (12): 457. https://doi.org/10.3390/fluids6120457.
- Wang, Yachao, M. Minhaj, Xinnan Wang, and Jing Shi. 2022. "Deformation Behaviors and Inverse Hall-Petch Effect in Nanoindentation of Silicon: An Atomistic Simulation Study with Experimental Validation." *Journal of Manufacturing Processes* 74 (February): 319–31. https://doi.org/10.1016/j.jmapro.2021.12.032.

See your name on this list? Help us get the word out about your amazing work by submitting it as a **Breakthrough Alert**. **This online form** is an easy, step-by-step guide for summarizing published research for the general public.

College Happenings is distributed to the NDSU College of Engineering staff and faculty every other Tuesday.

Read past issues of *College Happenings* here.

Deadline for submissions to *College Happenings* is 12:00 p.m. Fridays.

Contact kyle.bosch@ndsu.edu to submit items for *College Happenings*.

Follow the College of Engineering on social media.