

Minnesota Teacher of the Year 2023; Field Now at 44

2023 Minnesota
TEACHER
of the **YEAR**
59th Anniversary

Eleven teachers have been added to the field of semifinalists for 2023 Minnesota Teacher of the Year, bringing the total field of semifinalists to 44.

An independent selection panel of 21 community leaders chose the semifinalists from an initial field of 132 candidates from across the state.

The panel will review the semifinalists' portfolios again and review semifinalist video submissions in mid-March and will select about 10-12 finalists from among this group. The current Minnesota Teacher of the Year, Sarah Lancaster, will announce her successor at the Minnesota Teacher of the Year banquet, scheduled for May 7 at the Saint Paul River-Centre.

Education Minnesota organizes and underwrites the Teacher of the Year program. Candidates include pre-kindergarten through 12th-grade, Early Childhood Family Education and Adult Basic Education teachers, from public or private schools.

Additional teachers added to the semifinalist cohort for 2023 Minnesota Teacher of the Year include those listed immediately below, including the district, school, subject area and grade taught. The additional teachers were added to the semifinalist field after a data error was discovered late last week.

Congratulations!

Lance Fredrickson,
Osseo Area Schools, Oak View Elementary School, elementary education, Kindergarten

Mae Haley, *White Bear Lake Area Schools, Vadnais Heights Elementary School*, elementary education, 4th-5th

Michael Houston, *Saint Paul Public Schools, Harding High School*, mathematics 9th-12th

Bee Lee, *Roseville Area Public Schools, Emmet D. Williams Elementary School*, visual arts, Kindergarten-6th

Patrick Mahoney, *Worthington School District, Worthington High School*, world history, 10th

Emily Manson, *Saint Paul Public Schools, Johnson High School*, deaf and hard of hearing skills, Kindergarten-12th

Chandra Meach, *Minneapolis Public Schools, Hmong International Academy*, language arts, math, science, 2nd-6th

Johanna Mueller, *Anoka Hennepin Schools, Hamilton Elementary School*, elementary education, 4th

Carrie Newman, *Saint Paul Public Schools, Murray Middle School*, U.S. history, 7th

Sarah Omernik, *PiM Arts High School charter school, Eden Prairie*, English, 9th-12th



Jacket Manufacturing Setting the Bar for Student Run Businesses

Jason Groth, Perham Public Schools

Since its inception, Jacket Manufacturing has set the bar for student run businesses in the state of Minnesota. Becoming one of the first programs of its kind in Minnesota, it set the standard for student-run businesses in the state. More than 30 schools have toured or visited Jacket Manufacturing to learn from its business model.

The concept came from Darrin Swanson (from one of the program's partner companies). They took a trip to Cardinal Manufacturing in Eleva-Strum, Wisconsin to learn about their program and came away impressed and liking the look of it. With the building of a new school and a new shop, the concept was a perfect fit and Jacket Manufacturing was off and running.

Under the supervision of Jon Skow, Jacket Manufacturing is a fully student-run business.

The first year, Skow handpicked the students for the program, but since then, students must apply and go through an interview process to join Jacket Manufacturing.

"You learn everything around here, from the shop to the business side of it," Junior Tait Bormann said. "Right now, my focus is the business side of it, trying to always be positive and that we have a steady income."



Bormann spoke with many different businesses in his role and many of them have said it is a great program and it is exactly what it is like out there. Bormann started his ninth and 10th grade school years in the shop side, before transitioning to the business side of Jacket Manufacturing.

"I started at the bottom and worked my way up," Bormann said. "It feels pretty good to grow up with the business."

Bormann said when he started Jacket Manufacturing, he did not think he would be on the business side but said it is cool overseeing things from when he first started.

Junior Brock Melgard followed the same path as Bormann and now they both help oversee the business side of Jacket Manufacturing.

Melgard said his favorite part is learning

Continued on Page 4

Continued on Page 10

THANK YOU TO OUR ADVERTISERS FOR YOUR GENEROUS SUPPORT!

St. Cloud State University • University of Minnesota College of Food, Agricultural and Environmental Resource Science

Alexandria Technical & Community College • University of Minnesota Crookston • First Technologies Inc.

Metal Craft/Riverside Manufacturing • Productivity Inc. • Lake Air Metals • Herold Precision Metals

Minnesota State University Moorhead • Hamline University • Kwik Trip • Southwest Minnesota State University

North Dakota State University • International Wolf Center • NTM Inc • FedTech • Friends of the Prairie Wetlands • Bellin College

FOCUSED ON YOUR SUCCESS IN THE FIELD OF EDUCATION

*At St. Cloud State University's
COLLEGE OF EDUCATION AND LEARNING DESIGN,
we've been developing educators since 1869.*

Accelerate your career with summer course offerings and certificate programs on campus and online.



LEARN MORE



stcloudstate.edu/summer

BOLD | INNOVATIVE | FOCUSED



ST. CLOUD STATE
UNIVERSITY



MINNESOTA STATE

St. Cloud State University
A member of Minnesota State

St. Cloud State University is committed to legal affirmative action, equal opportunity, access and diversity of its campus community. (<http://scsu.mn/scsuoea>)

TEACHING TODAY MN™

PUBLISHER/EDITOR: Renee Feight
 EDITOR: Andria Reinke
 PAGE COMPOSITION: Andrew Clausen
 WEBMASTER: Scott Bayerl
 SPECIAL ASSISTANT: Allie Zacharias
 Please direct articles, advertising, questions or comments to:
Teaching Today MN™
 PO Box 1704
 Eau Claire, WI 54702
 Phone/Fax 715-839-7074
 www.teachingtodaymn.com

Please direct all inquiries to:
 renee@teachingtodaymn.com
Teaching Today™ is an independent publication for educators.

The opinions expressed in *Teaching Today™* are not necessarily the opinions of *Teaching Today™*. We reserve the right to edit any and all materials submitted due to grammar, content and space allowances. Articles, photos and artwork submitted to *Teaching Today™* are assumed to be released by the submitter for publication.

Teaching Today™
Transportation Today™
Manufacturing Today™

In this issue of Teaching Today MN

2023 Teacher of the Year Semifinalists: SNAPSHOTS	Pages 4–7	Minnesota Students Manage Their High School’s LEED Recertification at ISD 196	Page 24
MESPA Division Leadership Awards 2023	Page 8	Agriculture is Outstanding at Staples Motley Schools	Page 26
Science Teacher Named Top 10 High School Educator of the Year	Page 8	Teacher Spotlight: Tiffany Kobbermann	Page 26
Middle and High School Students Explore Manufacturing Careers at Mankato Area Public Schools	Page 10	Ag Blossoming Again at NBAPS	Page 27
Anoka High School and Community Partners Offer Networking, Hands-On Opportunities for Students to Explore Trades, Career Pathways	Page 12	Change Lives, Teach Agriculture, Food, and Natural Resource Education	Page 28
Making Career Connections	Page 14	Mankato’s FFA is Finding Success!	Page 29
Manufacturing, Robotics and the World of Technology	Page 16	The Academy for Sciences & Agriculture’s Plant Sale	Page 30
Robotics Teams Headed to Worlds!	Page 16		
CTE Igniting Interest at Fergus Falls	Page 18		
Next Generation Nursing Assistant Initiative Awards Equipment Grants to 24 High Schools	Page 21		
Osseo Senior High Schools Health Science Magnet Program	Page 22		

Web Exclusive Articles

- A Practical Gift, Century Stem Students Design Wheel Attachments for Classroom Tables*
- High School Students Engineer Hope for an Underdog Career & Tech Volunteer Highlight from District 916*

Visit: www.teachingtodaymn.com

Are you ready to make money for your organization?

Check out the Fundraising options offered by Kwik Trip Inc.



Car Wash Fundraising

- Purchase Kwik Trip, Inc. 5-count Ultimate car wash cards for \$20
- Sell the car wash cards for \$36 each
- Your organization receives a \$16 profit



Pizza Concessions

- Purchase Cheese Mountain traditional crust pizza at a discounted rate
- Set selling price per slice
- You bake or we bake it
- We offer a warmer and oven at no additional cost

Gift Card Fundraising

- Organizations purchase Kwik Trip Inc. gift cards at a discounted rate, resell them at face value, and keep the profit
- Items not eligible to be purchased with the Grocery Only include fuel, tobacco, alcohol, gift cards, lottery/lotto, and stamps



5% Discount



5% Discount



15% Discount



Healthy Concessions

- Choose from a list of products such as apples, bananas, salads, sandwiches, milk, etc. at 10% off (please visit our website for a list of products)
- Sell products for a higher amount
- Your organization keeps the profits that are made



KWIK TRIP™

We offer FREE SHIPPING on all orders.

Go to www.kwiktrip.com/community/fundraising to enroll today!

Questions? Let's chat - email Fundraising@kwiktrip.com

2023 Teacher of the Year Semifinalists: SNAPSHOTS



Two Osseo Area Schools Teachers Advance to Semifinalists in Minnesota Teacher of the Year Awards

Lance Fredrickson



Lance Fredrickson adopts the philosophy of “leading with love” as he teaches kindergarten at Oak View Elementary School. He said he’s grateful for the chance to step into a child’s educational life at the beginning to set the tone for their school experience. He has been a teacher with Osseo Area Schools for 20 years, with the past six at Oak View. Fredrickson said he knew from an early age that he

wanted to work with young kids, and he spent his teen and young adult years teaching dance and volunteering in his church’s nursery.

“There’s a lot of power and promise in the early years,” he said. “You’re laying a foundation for their whole life, and they’re sponges for learning and opportunity. It’s really exciting to think I could help create life-long learners.”

Fredrickson said the experience of being nominated for and selected as a semifinalist for the Minnesota Teacher of the Year award has been humbling and heartwarming. He said he feels the universe called him to do this work, and he’s grateful for a career where he gets to make a difference.

“It has been overwhelming in a really lovely way,” he said. “When I got to read the letters of people praising my work and my interactions with their kids, to me that’s the award right there. My heart and soul that I’ve poured into something: they saw it.”

Jennifer Hairrell



Inspiring internships at a bilingual preschool and a South Minneapolis non-profit organization changed the trajectory of Hairrell’s life as a college student, leading her to switch her major from journalism to education. She has taught at Osseo Area Schools for 18 years now in four different schools, both as an English Language (EL) teacher and a Spanish teacher, and most recently she’s been

at Maple Grove Middle School for the past four years.

“I’ve always loved working with kids, so it seemed like teaching would be a natural route so I could pair my love of language and learning with working with kids,” she said.

Hairell said she enjoys teaching a second language because of all the benefits it brings kids, from their brain development to their understanding of different cultures and experiencing multiple life perspectives. When she found out she had been selected as a semifinalist for the 2023 Minnesota Teacher of the Year, Hairrell said she was surprised and very honored and proud.

“I work very hard for my students, and I have had a lot of great colleagues and people who have helped me get to the point I’m at in my career,” she said. “If I hadn’t had those amazing colleagues, I might not have developed my skills the way I’ve been able to.”

www.district279.org



Minnesota Teacher of the Year 2023; Field Now at 44 Continued from Page 1

John Peter, *Pelican Rapids Public Schools, Pelican Rapids High School*, English as a second language, 7th–12th

Those 11 teachers join the 33 semifinalists announced last week:

Fatuma Ali, *Hopkins Public Schools, Hopkins High School*, English, 10th–12th

Amber Amundson, *Minneapolis Public Schools, Webster Elementary School*, literacy, 5th

Mark Anderson, *South Washington County Schools, Park High School*, science, 9th & 11th

Jex Arzayus, *Roseville Area Public Schools, Parkview Center School*, art, 6th–8th

Wendi Delmore, *Anoka Hennepin Schools, McKinley Elementary School*, reading and math, 2nd

Burke Egner, *Albert Lea Area Schools, Southwest Middle School*, technology, 6th–7th

Luis Estrada, *Spring Lake Park Schools, Park Terrace Elementary School*, elementary education, 4th

Stephanie Groetsch, *Alexandria Public Schools, Carlos Elementary School*, elementary education, 2nd

Jennifer Hairrell, *Osseo Area Schools, Maple Grove Middle School*, Spanish, 7th–8th

Kari Healy, *Mankato Area Public Schools, Mankato East High School*, media specialist, 9th–12th

Molly Keenan, *Saint Paul Public Schools, Harding High School*, social studies/history, 9th–12th

Mackenzie Keimig, *Mounds View Public Schools, Mounds View High School*, special education, 9th–12th

Gretchen Lee, *Badger Independent School District, Badger Community School*, family and consumer sciences (FCS), 7th–12th

Angela Mahowald, *Bloomington Public Schools, Hillcrest Community School*, elementary education, 5th

Josh Mann, *St. Michael–Albertville School District, St. Michael–Albertville High School*, social studies, 9th–12th

Giovanna Margalli, *Edina Public Schools, Cornelia Elementary School Elementary*, elementary education, 4th

Nichole Markworth, *Lac Qui Parle Valley School District, Appleton–Milan Elementary School, MMN Elementary, Lac Qui Parle Valley Middle School*, music, K–6th

Joseph Melde, *Inver Grove Heights School District, Salem Hills Elementary School*, STEAM, K–5th

Lisa Neaderhiser, *Anoka Hennepin Schools, Jackson Middle School, Setting III EBD (Center-based) English*, reading and social skills, 7th–9th

Lin Niu, *Hopkins Public Schools, Eisenhower Elementary School, XinXing Academy*, elementary education, 2nd

Sorcha Nix, *Saint Paul Public Schools, Open World Learning Community*, science, 8th–9th

Kathryn O’Brien, *Mounds View Public Schools, Bridges Program, (Federal Setting IV, special education)*, special education, K–3rd

Tatiana O’Donnell, *Robbinsdale Area Public Schools, Robbinsdale Spanish Immersion*, Spanish, math and science, 5th

Ryan Pedersen, *Bloomington Public Schools, Thomas Jefferson High School*, art, 9th–12th

Bob Peterfeso, Jr., *South St. Paul Public School District, South St. Paul Middle School*, life science, 7th

Sherlyn Peterson, *Intermediate School District 917 & Lakeville Area Schools, Christina Huddleston Elementary School/ISD 917 PACES Program*, special education, K–6th

Fathimath Eliza Rasheed, *Saint Paul Public Schools, Global Arts Plus—Upper Campus theatre*, 5th–8th

Richard Rosivach, *Mounds View Public Schools, Irondale High School*, social studies, 9th–12th

Joe Schulte, *Sartell–St. Stephen School District 748, Sartell High School*, technology education, 9th–12th

Linsey Strand, *Cass Lake–Bena Public Schools, Cass Lake–Bena Middle School*, science, 7th

Chelsey Tulgren, *Minnesota Correctional Facility–Stillwater*, adult education/adult learners

Laurel Wiehe, *Bloomington Public Schools, John F. Kennedy Senior High School*, Social Studies, 10th–12th

Allyson Wolff, *Hopkins Public Schools, Eisenhower Elementary School*, Spanish immersion, 1st

Courtesy of Education Minnesota. For more information go to <https://educationminnesota.org>

Hamline University Congratulates Alumni Nominated for Minnesota Teacher of the Year

Jill Anderson MA in Education '12

Michael Houston MA in Education '11

Molly Keenan MA in Teaching '08

Giovanna Margalli MA in Education '23

Carrie Newman '92, MA in Education, administrative licensure '02

Tatiana O'Donnell '92

Theresa Phillippo MA in Literacy Education '16

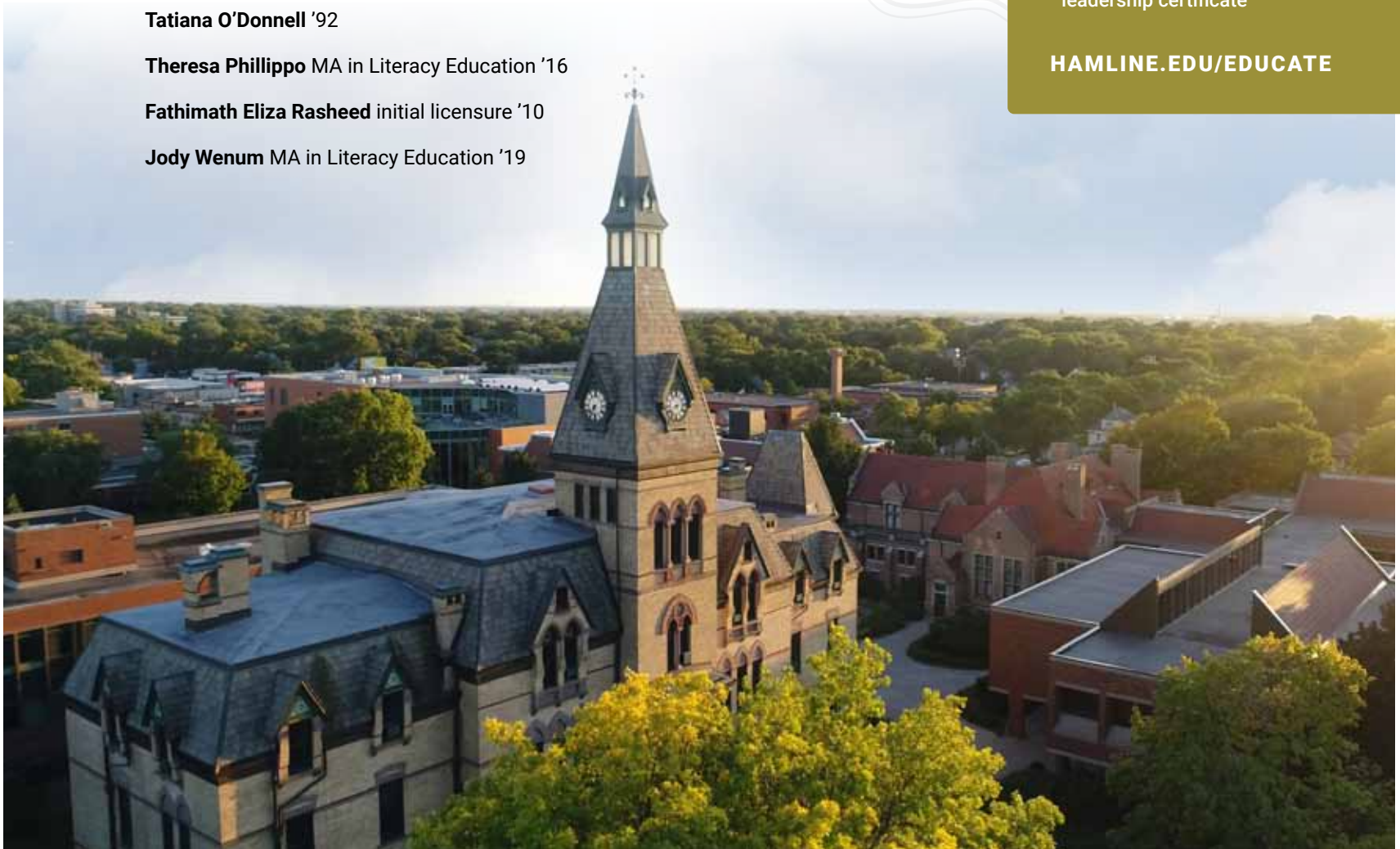
Fathimath Eliza Rasheed initial licensure '10

Jody Wenum MA in Literacy Education '19

LEARN MORE about
Hamline School of Education
and Leadership programs,
including our new offerings:

- Educational specialist
in leadership for
equitable innovation
and transformation
- Advanced literacy
leadership certificate

HAMLIN.EDU/EDUCATE





2023 Teacher of the Year Semifinalists: SNAPSHOTS

6 SPPS Semifinalists for MN Teacher of the Year

Six Saint Paul Public Schools educators have been named a semifinalist for the 2023 Minnesota Teacher of the Year by Education Minnesota.

Michael Houston

Math Teacher, Harding High School
19th year with SPPS/Harding High School

“Teaching is important to me because I get to help shape, form, and mold the academic minds of the students in my classroom. In my time here at Harding, being able to witness students’ growth academically and athletically has been the most amazing. I have been very fortunate to have built community, a trusting atmosphere, and an enjoyable learning experience within my classroom for many students over my 19 years.”



Molly Keenan

Social Studies Teacher, Harding High School
10th year with SPPS/Harding High School. An educator since 2002.

“Teaching is incredibly challenging, and it is also the way I can influence the future for good, bend the world toward justice and love, and have laughter and creativity in my life every day.”



Emily Manson

Deaf and Hard of Hearing Teacher, Multiple SPPS Schools
12th year with SPPS, currently works at Johnson Senior, Farnsworth Aerospace Lower Campus and Phalen Lake Elementary. Has worked at total of 19 SPPS schools

“I’m a communication expert. I am skilled at figuring out what pieces are missing for students and filling in those gaps. Because I work with the same students for many years, I get to know students and their families well. We learn, laugh, and cry together. My job is com-



pletely different from other teachers. In one day: I help a small group of kindergartners with hearing aids, 20 minutes later I’m teaching algebra to a few students at high school, an hour later I’m teaching a 4th grader to read, then later in the day I may help a general education teacher make curriculum accessible for our students. Although this job always keeps me on the run, it is so important to me that students with hearing differences have access to a teacher who is specially trained in educating students who are deaf and hard of hearing so that they can reach their maximum potential.”

Carrie Newman

History Teacher, Murray Middle School
28th year with SPPS; 16th at Murray Middle School

“I am very passionate about History and trying to teach from multiple perspectives versus what the textbook tells us is important. I’m also a firm believer in a program called History Day. Although there is a competition that is very exciting, what I love is that every child has a chance to research someone they choose, someone they are passionate about!”



Sorcha Nix

Science Teacher, Open World Learning
8th year with SPPS. Four years at Open World Learning after four years at Murray Middle

“Coming from a family of educators, I am so proud to be a teacher. It’s an incredibly rewarding and extremely challenging profession.”



Fathimath Eliza Rasheed

Theater Teacher, Global Arts Plus Upper Campus
13th year with SPPS and Global Arts Plus

“Teaching is important because it’s the basis of human connection. We’re all standing on the legacies of the stories, knowledge, and wisdom of our elders.”



www.spps.org



South Washington County Schools Teacher is a Teacher of The Year Semifinalist

Park High School teacher Mark Anderson was selected as a semifinalist for the 2023 Minnesota Teacher of the Year Award.

What made you go into education?



I made the decision to go into education in my sophomore year of college. I started my major in Agricultural Engineering and found myself being the science tutor for my cohort in my

freshmen year. In my sophomore year, I applied to a Breakthrough Collaborative teaching position, teaching science during the summer. I loved that experience so much. I found myself switching majors to chemistry and putting myself on the track for teaching.

What do you hope your students remember most about you as a teacher?

I hope they take with them some level of passion for understanding how things work that I have. I hope they remember that I tried to make learning fun and approachable. I hope they remember my dad jokes as well.

What advice would you share with people who are interested in becoming teachers?

Teaching is a lot of work. The hardest part of the job is continuing to push students every day. Most days this is what taxes my stamina. Pushing those with good grades to learn more and pushing those who are not feeling motivated on a given day can be really challenging. But the results always outweigh the efforts. The most important thing to remember is that the students will grow and change with your help.

www.sowashco.org



Joe Schulte Named Semifinalist for Minnesota Teacher of the Year Award

Sartell-St. Stephen ISD 748

SABRE PRIDE: Congratulations to Joe Schulte for being named as a semifinalist for the 2023 Minnesota Teacher of the Year award!



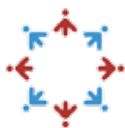
Joe Schulte — a Sabre High School Technology Education teacher and one of our Sabre Alumni — shared, “In ISD 748 and previously with District 742, I have worked

alongside some of the best in the state. They have challenged me to become my best, supported me and teamed with me throughout. I have learned so much from them and I hope to represent and share the great work that we get to do together.”

One of only 33 semifinalists, Schulte was one of nine ISD 748 employees named as 132 candidates for the award that “celebrates the tradition of excellence in teaching in Minnesota.”

www.isd748.org





2023 Teacher of the Year Semifinalists: SNAPSHOTS

Lakeville Semifinalist for Minnesota Teacher of the Year



A teacher serving students in Lakeville Area Schools has moved on as a semifinalist for 2023 Minnesota Teacher of the Year. Sheri Peterson is an Intermediate School District 917 special education teacher who works with students at Christina Huddleston Elementary.

Peterson works with Christina Huddleston students through the PACES program (Program Alternative for Communication Education and Socialization). The program meets the needs of students primarily with Autism Spectrum Disorders. Peterson has been part of the program since 2003, working at program locations in Lakeville and Farmington. She started working as a special education teacher in the program in 2007.

"I'm overwhelmed with happiness and so grateful for this experience. Being selected as a semifinalist for Minnesota Teacher of the Year 2023 is something I will always treasure. This is really a dream come true experience for me personally and professionally. Being a special education teacher has brought me so much joy over the years, and making a difference in the lives of children is one of my greatest passions. I love to collaborate with people that share my passion and I truly

believe that by working together we can make a difference and have a positive impact on all of our students," said Peterson in reaction to the announcement.

"Sheri Peterson is a charismatic teacher-leader who inspires those around her. Her passion and dedication to student success not only impacts students beyond the classroom, but also for years to come. Sheri's patience, caring, flexibility, and commitment make her a vital advocate for her students," said Christina Huddleston Elementary principal, Jill Kelly.

"Sheri has a unique skill set, which I have rarely seen. She is extremely dedicated to her profession, exuding professionalism, positivity, energy, resourcefulness, passion and an overall commitment to meeting the needs of the learners she serves. Beyond that, she has excelled at working with paraprofessionals and building strong relationships with parents and caregivers. She facilitates productive dis-

cussions between her colleagues, parents, and other school staff. She is extremely organized, detail oriented, has a calm demeanor, and has incredible follow-through," said ISD 917 PACES Assistant Director, Don Budach.

The list of semifinalists was narrowed down from 131 candidates, which had also included Lakeville North High School math teacher, Kari Raymond.

www.isd194.org



Three District Educators Named Semifinalists for Minnesota Teacher of the Year Award

Of the eight Anoka-Hennepin educators named candidates for the 2023 Minnesota Teacher of the Year award, three have been selected as semifinalists.

Wendi Delmore is a second grade teacher at McKinley Elementary School.

"I am extremely humbled and honored to be nominated and recognized for doing what I truly love to do," Delmore said. "I honestly can't believe this is happening."



Johanna Mueller is a fourth grade teacher at Hamilton Elementary School.

"It is so humbling to be nominated as a semifinalist because I know how hard all teachers are working right now to get kids on track after the challenges of the pandemic," Mueller said. "I am especially excited to put a spotlight on my school, Hamilton Elementary. Hamilton's strength is its diverse student body, and the staff at Hamilton are working every day to come up with



creative solutions to engage our students and challenge the status quo."

Lisa Neaderhiser is a special education teacher (EBD) at Jackson Middle School — A Specialty School for Math and Science.

"To be nominated and advance on to the semifinals is such an incredible honor," Neaderhiser said. "I have been an EBD teacher for half of my life. When I accepted the nomination and began my



reflection on my career, I looked back on my journey with a smile and a full heart. I have been doing something that I truly love. I am so honored to be recognized along with all of these amazing educators. Being a teacher in the Anoka-Hennepin School District has been the highlight of my career."

www.ahschools.us



Tanya Bergman: Teacher of the Year Semifinalist

This year, Little Falls has the privilege of having a nominee for Minnesota Teacher of the Year, Tanya Bergman. Bergman is a special education teacher at Little Falls Community Middle School. She strives to create a fun and encouraging learning environment for her students. Succeeding in implementing the Unified Club through Special Olympics, she seeks to create relationships between her students and regular



education students. Bergman recognizes the importance of patience, and it shows true in her teaching. Our school is very proud to have an amazing representation of the Little Falls educators in the running for this incredible honor!

www.lfalls.k12.mn.us



Did you miss an issue of Teaching Today MN?

Access previous issues at:

www.TeachingTodayMN.com

MESPA Division Leadership Awards 2023

This award expresses appreciation to the many outstanding individuals in the principalship who have contributed generously to improving education, their communities, and their profession. They serve as role models and sources of inspiration to other principals and educators.

Awardees were recognized in February at the MESPYs, during the annual statewide convention of Minnesota's elementary and middle-level principals.

Any MESPA member may nominate a peer for consideration; Division Presidents and Presidents-Elect then facilitate the selection process within each division. Nominations are due by September 15, 2023. If you have any questions about the Division Leadership Award, please contact mespa@mespa.net

Saint Paul Division

Duane Dutrieullie

*Principal, Hazel Park Preparatory School
Saint Paul School District*

Sarah Lightner, principal of Groveland Park Elementary in the Saint Paul School District, nominated Principal Dutrieullie. Sarah wrote, "Duane is a committed, gentle, authentic leader. He has a strong commitment to equity that is thread in all he does. He is the St. Paul MEPSA President, a natural leader among St. Paul principals and a leader in the community, at large".



Duane's most significant career accomplishments include important work both at the district and building level to support the Saint Paul School District. Specifically, employing building staff that reflect school demographics, mentoring principals through the Minnesota Principal Academy and the school district.

Minneapolis Division

Ryan Gibbs

*Principal, Loring Community School
Minneapolis School District*

Principal Gibbs was nominated by Jim Clark and the Minneapolis MESPA leadership team for his leadership helping guide Minneapolis Principals through the COVID pandemic, the murder of George Floyd, and a historic teacher strike. His steadfast and supportive leadership helped navigate his colleagues through uncharted waters



the past few years.

Principal Gibbs's most significant career accomplishments include important work both at the district and building level to support the Minneapolis Grow Your Own program. Specifically, helping recruit and mentor future teachers of color throughout the district. He's also partnered with Patrick Henry High School to create an education pathway program for students of color to get experience interning in classrooms. This program will also help recruit and grow future educators of color in our district.

Central Division

Randy Qual

*Principal, Mora Elementary
Mora School District*

Principal Qual's most significant career accomplishment is receiving the 2022 National ESEA Distinguished School. ESEA is a national program that recognizes schools that have successfully used their Elementary and Secondary Education Act (ESEA) federal funds to improve the education for all students.



Randy replied "I'm honored to be nominated for this award. I am lucky to work with a wonderful staff that cares about our school and community. Mora Elementary has amazing students and supportive parents that want the best for their kids. It's a great place to be on a daily basis."

Western Division

Craig Bahr

*Principal, Lake Park-Audubon Elementary
Lake Park-Audubon School District*

Principal Trisha Mariotti of Roosevelt Elementary wrote, "It is my honor and pleasure to recommend Mr. Craig Bahr for the 2023 MESPA Division Leadership Achievement Award for the Western Division. I have had the opportunity to work with Craig as a teaching colleague, as well as a peer in my current role as Principal of Roosevelt Elementary in Detroit Lakes. Craig Bahr was a gifted classroom teacher and now shares his knowledge and expertise as the Elementary Principal in Lake Park, MN. He collaborates exceptionally well with staff and administrators, alike, eliciting feedback from both groups



to determine what works and what is best for his students."

Southeast Division

Amanda Durnen

*Principal, Byron Primary School
Byron School District*

Principal Jeffrey Copp, La Crescent-Hokah School District wrote, "Amanda has been a leader for the MESPA Southeast Division through planning and organizing division meetings, communicating professional development opportunities to colleagues, connecting principals with legislative representatives, and sharing her experiences as a presenter at both MESPA and MREA Institutes. Amanda actively participates in state and national associations and seeks opportunities to continue to grow as a leader. She helped to successfully transition her district to standards-based grading as well as planning and opening a new primary school."



East Suburban Division

Staci Souhan

*Principal, Turtle Lake Elementary
Mounds View School District*

Principal Souhan was nominated by Dr. Susan Risius, principal at Royal Oaks Elementary in Woodbury. She wrote, "Staci has focused on assisting principals in our division to learn more about being an instructional leader. She has planned meaningful division meetings with the leadership team that have helped stretch our thinking!"



Principal Souhan's most significant career accomplishment was completing her doctoral degree in December 2022 which focused on how administrators can support educators through cycles of efficacy.

Staci's hobbies include underwater photography of sharks and she has been in the water with hundreds of sharks without a cage.

Courtesy of the Minnesota Elementary School Principals' Association (MESPA)

Stillwater Science Teacher Named Top 10 High School Educator of the Year



Stillwater Area High School teacher Ben Straka has been selected as a Claes Nobel Educator of the Year. Straka, who teaches astronomy and biology, was one of just 10 teachers across the country

recognized by The National Society of High School Scholars (NSHSS).

Each year, NSHSS encourages students to nominate an educator who has significantly impacted their high school academic career. This honor recognizes those whose passion and devotion inspire their students to grow and develop as scholars, leaders and citizen

During his 20 year career, Straka has inspired many students to find a passion in studying the night sky and the natural world around them. He takes great pride in helping his students climb their personal mountains and overcome life challenges. He also serves as an assistant track and field coach.

stillwaterschools.org



LEVEL UP YOUR CAREER THIS SUMMER

Advance your educational career through MSU Moorhead's nationally and state-accredited graduate and undergraduate degrees and certificates.

GRADUATE EDUCATION PROGRAMS ARE ENTIRELY ONLINE, RELEVANT, FLEXIBLE AND CONVENIENT.

- ▶ Curriculum & Instruction
- ▶ Educational Leadership (MS, EdS & EdD)
- ▶ Special Education (Licensures: DD, ECSE, SLD, PHD)
- ▶ Graduate Content Courses for Concurrent Enrollment
- ▶ MN and ND School Administrative Licensures

UNDERGRADUATE EDUCATION PROGRAMS

- ▶ Early Childhood Education
- ▶ Elementary Inclusive Education
- ▶ Secondary, K-12 Education & Academic Behavior Strategist Licensures

[MNSTATE.EDU/GRADUATE-EDUCATION](https://mnsstate.edu/graduate-education)



**THROUGH EVERYTHING I DO —
FROM INSTRUCTION IN THE CLASSROOM
TO COLLABORATION WITH COLLEAGUES
— I AM NOW ABLE TO SEE FROM THE
LENS OF AN ADMINISTRATOR.”**

- Todd Bergeson, 7th grade math teacher at
Dilworth-Glyndon-Felton (Minnesota) Middle School



Middle and High School Students Explore Manufacturing Careers at Mankato Area Public Schools



Mankato Area Public Schools

Mankato Area Public Schools (MAPS) are providing middle school students with the opportunity to gain hands-on experience of different manufacturing careers through the use of virtual reality (VR) career exploration.

This innovative technology is providing an engaging and safe way for students to explore manufacturing jobs and gain insights into this important industry.

Manufacturing is a key sector of our economy, but many students are not familiar

with the range of jobs and career opportunities available. Virtual reality career exploration offers an effective way for students to explore manufacturing careers in a hands-on way. By simulating work environments and tasks, students can experience different jobs and gain a better understanding of the skills and qualifications required.

According to Caleb Watson, the College and Career Readiness Coordinator for MAPS, the VR software provides our student the opportunity to explore a wide range of careers within the manufacturing career pathway. I am impressed with how interactive the VR software is. Students actually walk, kneel, and manipulate tools. In the Manual Machinist simulation students change tooling, load stock, and even tighten and loosen the spindle chuck. They can see how the skills they are learning in the classroom can be applied to real-world jobs, and they are gaining insights into the range of career opportunities available in one of our region's most important industries. We are really grateful for the funding provided by the Future Ready CTE grant made available by the South Central Service Cooperative".

Virtual reality career exploration allows students to work with virtual tools, machinery, and processes, providing them with a realistic sense of what it would be like to work in manufacturing. The simulations can incorporate different jobs and expose students to a wide variety of careers within manufacturing. Some careers our students are exposed to are Process Engineer, CNC Operator, Manual Machinist, Welder and Robotic Welder, and Quality Assurance Technician. These virtual experiences also include workplace safety protocols which reinforces the importance of safety in the workplace to our students.

The implementation of virtual reality job simulators in middle school manufacturing career exploration is an exciting development in the field of education. This technology is providing students with a unique and engaging way to explore manufacturing careers and gain a better understanding of the skills and qualifications required for these jobs.

Mankato Area Public Schools' High school students use a variety of welding and

Continued on Page 20

Jacket Manufacturing Continued from Page 1



all about business. "It's a class, but it's more just a business," Melgard said. "I'm learning more in this than taking a business class."

Melgard and Bormann both hope to run their own business when they are done with high school and believe what they are learning in Jacket Manufacturing will help them down the road.

"When I started, I just liked the shop," Melgard said. "Once I heard, we could probably take this part over, that would be perfect, learn more about taking over a business and all that goes with that."

Skow said every student finds a niche within the program. Students learn soft skills along with the skills that come with running a business.

"Some of them think they want to weld and after a while they realize it is not for me. If they are good with math, they will be in the business office," Skow said. "I hate to profile but all these kids except for a few that are working on it get good grades. It is not that I pick them because they get good grades, it seems like good grades are the byproduct of the kids we want in the program."

Jacket Manufacturing allows students to work with Laser Engravers, Belt Sanders, Plasma Cutters, CNC Routers, CNC Mills and learn skills in welding.

Skow said the program has three-ring binders full of stuff they can make. He said some of the products are mass production, but most of the work is one-off things that local companies are unable to work on due to profitability.

"The students charge for labor and materials and the money they generate goes into their budget specifically for Jacket Manufacturing," Skow said. "(That money) can be used for machines, tools and things like that."

Most of the work done with Jacket Manufacturing happens during the school day. It is a two-block class (two, 55-minute periods) with a half hour of Power Hour in between. "These guys are in my Power Hour and some of the kids do their homework in the Power Hour, a lot of them, if they don't have homework, will be out here banging away," Skow said. "If they have stuff to do, they do it. When you behave like that, the clock goes in the right direction, instead of the wrong direction."

Currently, Jacket Manufacturing is selling Metal Lake signs, Cutting Boards, Square Metal Signs, Wood Duck Boxes, Wooden Flags and Cedar Salmon Planks, which are used to infuse incredible smoked, cedar flavor into grilled salmon.

Jacket Manufacturing is on a bit of a rebound. The COVID-19 Pandemic caused several huge setbacks as Distance Learning is a misnomer when it comes to business, according to Skow. However, after losing time because of the pandemic, the class has rebounded and is back into full swing.

Skow said the feedback from the community has been amazing. The adults that have toured the facilities have been impressed with the work of the students during those presentations. "It is amazing. The support of our business partners is huge and the reason they are giving us support is because everyone is hurting for skilled labor. Everyone that goes through this program whether it is working in the business office, welding, woodworking, or whatever end up going to work for some of our business partners, but not all of them," Skow said. "The kids obviously love it because there is a certain amount of freedom with it. It is not like a sit-down, boring class. I am not the dictator; I am a facilitator."

More information on products and services Jacket Manufacturing has to offer can be found at www.jacket-manufacturing.com

perhamschools.org





Taking pride in manufacturing products that are sold worldwide



We're looking for career-minded people who will grow with our company and are offering entry level positions with rapid advancement.



We offer on the job training, blueprint reading, math classes, and a great team of coaches to help you succeed.

Strive to be Better! That is our creed.

Learn more at: www.heroldprecision.com/jobs



**Herold Precision Metals ♦ 1370 Hammond Road ♦ White Bear Township, MN 55110-5865
(651) 490-5550 ♦ info@heroldprecision.com ♦ www.heroldprecision.com**



Anoka High School and Community Partners Offer Networking, Hands-On Opportunities for Students to Explore Trades, Career Pathways



Anoka-Hennepin Schools

Thanks to partnerships with the Anoka Area Chamber of Commerce, Connexus Energy, NTM Inc., and Dynamic Group; students at Anoka High School (AHS) made connections with local technical colleges, labor unions and employers, and experienced hands-on job skills in virtual reality scenarios in a mobile learning lab on Wednesday, Feb. 1.

“We want to give students a lot of options to explore what it may look like to work right away or discover real opportunities in the community to apply some skills that they may already have, as well as possible pathways to technical colleges or on-the-job training that will lead them to a career,” Colleen Neary explained.

Neary, the College and Career Specialist at AHS; and Jill Luoma-Overstreet, the Science, Technology, Engineering, Arts and Mathematics (STEAM) curriculum integrator; partnered with the Anoka Area Chamber of Commerce to bring the celebration to the school.

“It’s a community effort, and we want students to feel confidence around making a decision about their future,” said John LeTourneau, director of manufacturing for the Anoka Area Chamber of Commerce.

There are 200,000 jobs in the county, 20% of which are in the manufacturing field. The current median wage of jobs in the county is \$50-55,000 a year, while the median wage for manufacturing jobs in the community is \$89,000 a year, LeTourneau shared. “By exposing students to these opportunities, they can get a job, a house, start a family and positively impact the community that they grew up in - without college debt.”

Representatives from local businesses, technical schools and labor unions were on site for the “Trades Fair,” which all AHS students could attend before, during and after their lunch period. Senior Sam Hanks said, “This is helpful, because kids don’t always know what they want to do after high school and this is kind of the same as when the [four-year] colleges come in.”

“School hasn’t always been easy, but I know that I want to work,” said Christian Johnson, a junior at AHS. “Today, I was able to learn a lot and start making plans for the classes that I want to take [in high school] next year so I can prepare for the trades. There are a lot of things to consider.” Johnson said he wants to explore welding and carpentry in the future.

Students with specific interests in industrial technology classes, or enrolled in the STEAM or AVID programs were invited to try their hand at woodworking, welding, carpentry, commercial painting and excavator driving - using driving simulators, an Oculus, 3-D video screens, and augmented reality (AR) scenarios in a full-size trailer — known as the Big Ideas Mobile Learning Lab.

“A lot of kids don’t want to think about

the future, because it can be stressful - but this was right here - in your face, and it was really cool to experience it,” said Daniel Siede, a senior. “Ms. Neary gave me brochures, I was able to talk to people about trade schools, and it’s been a huge help.”

www.ahschools.us



Education, Employment and Enlistment Spring Spectacular and financial aid help session set for April 22

Career and college specialists from across the school district have collaborated to provide families with the opportunity to explore a variety of college, career and alternate pathways to pursue after school. The group will present the first “Education, Employment, and Enlistment Spring Spectacular” on Saturday, April 22 from 8:30-11 a.m. at Blaine High School (BHS).

The format will include a mix of scheduled 40-minute sessions on focused topics at either 8:30 or 9:15 a.m. The sessions feature a wide range of topics:

- Tips on lowering the cost of college.
- Military pathways.
- Labor market trends.

- Trades and apprenticeships.
- Information for parents of high school juniors.
- And more.

The college and career fair opens at 10 a.m. Nearly 40 higher education institutions from the region, 30-plus employers, and multiple military branches will be in attendance.

Families can learn more about financial aid by attending a FAFSA and MN Dream Act help session at the event. The free financial aid session will feature professional assistance in completing the FAFSA or the MN Dream Act. For more information go to tinyurl.com/mrxyxexz

NTM Inc.
ONE STOP TOOLING AND MACHINE SHOP



From customized design to CNC machining,
NTM is here to help with all of your tooling needs.

See our wide variety of services at: www.ntminc.com

At NTM Inc., we pride ourselves on our integrity and being a shop you can count on. NTM has more than 25,000 square feet of production area and more than 30 dedicated employees who understand the importance of doing a job right the first time and providing high quality work every time.

140 NE Liberty Street
Minneapolis, MN 55432
Phone: 800-274-4686 | 763-780-1420
Email: sales@ntminc.com

NTM is a proud supporter of the





385 90th Ave NW,
Minneapolis, MN 55433
Phone: (763) 785-2429
Toll Free: 1-888-785-2422


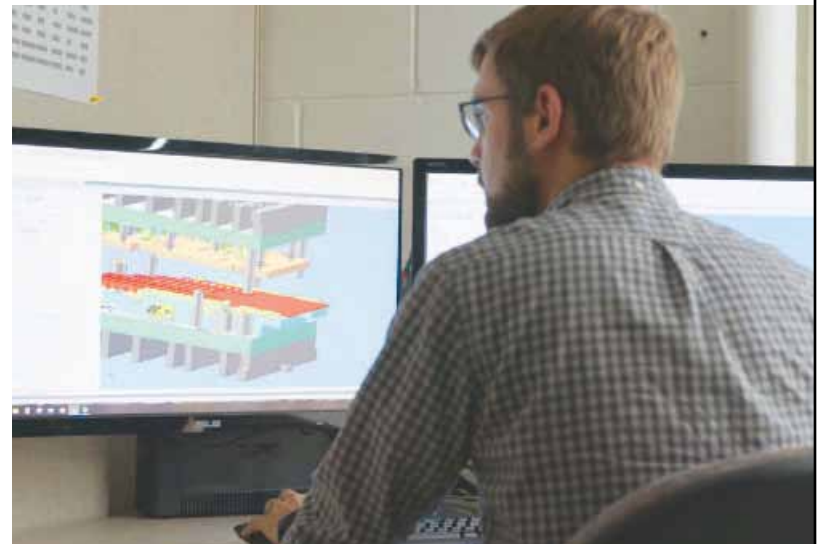
A close-up photograph of a welding process. A welding torch is positioned over a metal piece, with bright blue and white sparks flying out from the point of contact. The background is slightly blurred, showing industrial equipment.

GIVING SHAPE TO THE PRODUCTS OF TOMORROW

Lake Air Products combines full-service fabrication, innovative design engineering, and world-class customer support to be the one-source metal supplier you need to turn the ideas of today into the products of tomorrow.

JOIN OUR TEAM

If you have the skill, dedication, and desire to work in the precision metal industry, then we want you to join our growing team.

A close-up photograph of a CNC machining process. A metal cutting tool is positioned over a workpiece, with a bright orange and yellow spark or chip being removed. The background is dark, highlighting the bright light from the machining process.

Now Hiring apprentices in Welding, CNC Machining,
Press Brakes or Tool Making!

If you are mechanically inclined and looking to start a career in manufacturing, please call 763-398-4267 or email HR at hr@lakeairmetals.com

Learn more at: www.lakeairmetals.com/careers



Making Career Connections

“How do we create more Irondales across the state?”



Walter Patterson, senior at Irondale High School; Metal-fab intern at FedTech

Mounds View Public Schools

That was the question posed by commissioner Steve Grove from the Minnesota Department of Employment and Economic Development (DEED) when he and other state officials visited Irondale High School this fall. Grove and his colleagues met with students, staff and community employers to learn how Irondale, Mounds View High School and the Area Learning Center (ALC) were helping students prepare for careers in manufacturing, the trades and other sectors of the economy.

“There’s a totally different and unique job market out there today, and the idea that every student has to go off and get a four-year degree is not necessarily something we’d push forward anymore,” he said. “There are extraordinary career paths with high wage possibilities that require training that starts now in high school.”

In Mounds View Public Schools, that preparation is often provided through Career and Technical Education (CTE) courses. CTE classes offer students an opportunity to explore careers, earn college credit and in some cases, complete a career and technical program before graduating from high school.

Courses range from accounting to automotive to fashion design to engineering design. A partnership with 916 Career and Technical Center also allows students to leave campus and take additional courses not offered at the high schools.

More than 1,000 Irondale and Mounds View students are participating in CTE classes this fall, many of them in manufacturing and the trades.

Community partnerships also play a key role in offering students hands-on experience and exposure to career paths for high-wage, high-demand jobs. Internships are available to students through work-based learning opportunities, which include engineering/manufacturing, business, construction trades and welding opportunities at a variety of local companies. Today, 40 community organizations are participating in partnerships bringing real-world experience to students.

“Students bring us instant value,” says Dewey Josephson, operations manager at Johnson Screens, where there are four Irondale students currently welding at the company’s plant in New Brighton. “Within a couple of weeks to a month they’ve passed all the train-

ing and certifications for the welding, and they are able to do production welding.”

Superintendent Chris Lennox says the District’s work with community partners is designed to ensure students are having experiences that are going to prepare them for their future.

“Graduating seniors are often asked ‘What college are you going to go to?’ ” he says. “We’re shifting that narrative to, ‘What is it you want to be, and how can we help you on the pathway to whatever that is?’ ”



You’re hired!

Local businesses often give Mounds View Public Schools students their first hands-on opportunity to explore a career and discover a passion.

Walter Patterson, Irondale senior

At work: Metal-fab intern, inspecting and manufacturing metal fabricated parts.

In high school:

- Career and Technical Education (CTE) courses: Students in grades 10-12 participate in CTE courses and earn credit that will be honored at some Minnesota Community Colleges.
- 916 Career & Technical Center: A partnership allows students to leave campus and take additional courses not offered at the high schools.
- Internship: Gen Z — a paid, hands-on, experiential internship program for students at four local manufacturers during the summer of 2021.

“First class when I come in, I go to welding, and I learn how to weld. There are a lot of opportunities that don’t involve a four-year college. You don’t have to go to a four-year college or a two-year college to get a good-paying job.”

Career & College Centers at Irondale and Mounds View High Schools

The high schools’ Career & College Centers are hubs where students can get help with tasks like exploring careers, completing college searches and applications, conducting job searches, finding internships, learning about financial aid and discovering how to earn college credits in high school.

What’s new?

Staff: This fall, the District welcomed two new career and college coordinators: Fritz Rock at Irondale and Madison Hendrickson at Mounds View. In partnership with post-secondary planning coordinator Michael Werner and community partnerships coordinator Mindy Handberg, both are dedicated to helping students discover their post-secondary goals.

Space: Mounds View’s old “paddock” space has been transformed into a dedicated location for its Career & College Center. Renovations will begin this summer at Irondale to create a modernized space for its Career & College Center.

Support: This fall, both high schools launched revamped websites that offer an easier way to navigate a variety of career and college resources and services. Check out mvpschools.org/irondalecareercollege and mvpschools.org/moundsviewcareercollege.

Reprinted with permission from Mounds View Public Schools based in Shoreview, MN. Originally printed in the fall 2022 issue of School Talk.

moundsviewschools.org



Manufacturing Your Career

FedTech delivers full-service solutions for our clients’ custom machining and manufacturing needs. If you’re ready for a rewarding custom manufacturing career with competitive pay and benefits, as well as on-the-job training and education, we’re ready to help make it happen.

Learn more at: fedtech.com

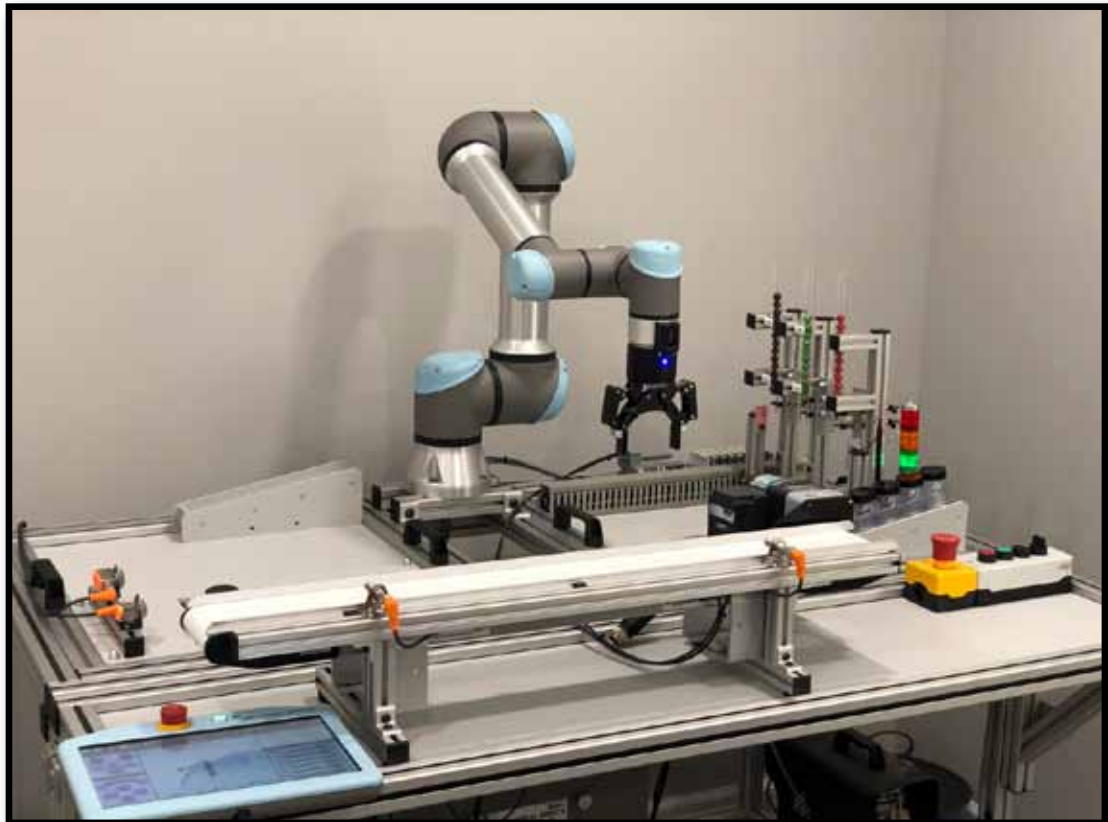


4763 Mustang Circle,
Mounds View, MN 55112
fedtech.com
888-784-4600



Integrate Robots with PLCs and Mechatronics

Watch these
products in
action!



The RTS-200 training system provides:

- * mobile platform
- * hands-on robotic operations
- * flexible design for use with collaborative and non-collaborative robotics technology
- * expands beyond simple pick & place functions
- * configure the didactic equipment to suit your needs

FIRST 
TECHNOLOGIES INC.
Putting Education ... FIRST

800.787.9717

info@firstech.com • firstech.com

Three Robotics Teams Headed to Worlds!



Help Wanted:

Sabre Robotics Headed to World Championship!

The Sabre Robotics team from Sartell High School in Sartell, Minnesota won the Lake Superior Regional in Duluth, Minnesota. The team also won the Sustainability Award and First Dean's List Award. The win and awards qualify them for the World Robotics Championship on April 19-22 in Houston, Texas. First Championship hosts the international event to promote science, technology, engineering, and math (STEM) in our young people and community.

Sabre Robotics started in 2016 and this is their first regional win. They are proud to represent Sartell High School, Sartell, and Minnesota in a World competition.

Help spread the word and reach out goal to bring our entire team to an incredible competition!

► www.gofundme.com/f/sabre-robotics-headed-to-world-championship



Denfeld High School's Robotics Team Going to Worlds

Over the Weekend of March 23rd to the 26th DNA Robotics Team competed at the Minnesota Northstar Regional at LaCrosse. The team competed well and was the first pick of the 6th Alliance. We went into the Playoff's and we competed our best but we unfortunately lost both of our playoff Matches against the #5 Seeded Alliance and the #2 Seeded Alliance. And while we finished the regional in 7th place we knew we did our best.

During the awards ceremony that took

place during the playoff matches we were pleasantly surprised to be announced as the winners of the Engineering Inspiration Award. This is one of the most prestigious awards in all of First Robotics and it includes an invitation to the World Championships in Houston Texas from April 19th - 22nd.

To find out more about the Denfeld Nation Automation and support their Give MN campaign, visit the link below:

► www.givemn.org/story/Dna-Robotics59ca6b6e07950

Continued on Page 20

Manufacturing, Robotics and the World of Technology



Hope Riska, Productivity Inc

Wow — it's hard to believe how far we have come with Manufacturing over the years. I remember back in High School we had 2 options for "Industrial Arts" classes — Woods and Metals. Our "wood" project was a bird house and our "metals" project was a pencil box. I wish we had the opportunities back then that you all have now — CAD/CAM software, Manual and CNC machines, Blueprint Reading, Robotics (FIRST, Vex, etc.), even competitions for all of it! Industrial Arts was considered to be for "those kids" — they didn't

have anything called STEM (or STEAM) and it all stems around Manufacturing!

Do you realize what INCREDIBLE opportunities await you? Everything you see, touch, smell, taste — it was ALL manufactured in some way, shape or form. From your toothbrush to your shoelaces, buttons, eyeglasses and every little piece of your "technology" — cell phones, computers, any devices — to your house (and all that it was built with), car and even things you use every day . . . dishes, silverware, medicine bottles . . . ALL MANUFACTURED! In fact, my Mom wouldn't be

here today if it weren't for someone having an IDEA . . . a PLAN . . . a DESIGN and a way to MANUFACTURE a life-saving device called a Pacemaker-Defibrillator made by Medtronic.

As part of my role as Education and Events Administrator at Productivity Inc, I get to visit schools across our nine-state area and have the honor and privilege to do BIG check presentations to schools for Scholarships and Sponsorships from the Gene Haas Foundation for Manufacturing Programs and Competitions like FIRST®, SAE, SkillsUSA and SuperMileage. I even had the opportunity to be a Game Announcer at a few Regional FIRST® Robotics Competitions and was SOOO impressed by the "Gracious Professionalism®" (one of the Core Values of FIRST, coined by Dr. Woodie Flowers, EAB Chair Emeritus and Distinguished Advisor, teamwork and attitudes of the students (and teachers, judges, volunteers, etc.) at these events and get excited about the fact that THEY ARE OUR FUTURE! FIRST® Founder, Dean Kaman states the Vision of FIRST® Robotics is "To transform our culture by creating a world where science and technology are celebrated and where young people dream of becoming science and technology leaders." I would encourage students and parents to attend a FIRST event and witness an amazing culture where it doesn't matter

who you are or where you are from — you are all accepted and part of the FIRST® Mission: "To inspire young people to be science and technology leaders and innovators, by engaging them in exciting mentor-based programs that build science, engineering and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication and leadership."

I would also challenge everyone — students, parents, teachers and Industry leaders . . . explore the world out there. How many of you know at least FIVE companies you pass by every day on your way to school, work, church or just driving by them . . . do you know WHO they are or WHAT they do? Google® them . . . find out what they do. Today's generation wants to make a difference, be sustainable and do what they can to make the world a better place. What better way to do so than to embrace today's technology? After all, Technology IS Manufacturing . . . Manufacturing IS Technology!

I once heard someone say, "Do what you are passionate about and you will never work a day in your life." If you, your kids or anyone you know has a passion . . . let them explore it! You only have ONE life to live, so make it count!

SAY **YES** TO A CAREER IN

EVERYTHING we have, **EVERYTHING** we use, **EVERYTHING** we see, taste, hear, smell, feel, or rely on for our way of life, and our very existence, at this moment in human history, has been made possible by **MACHINISTS and ENGINEERS.**

MANUFACTURING is EVERYWHERE!



Medical: Bandages, needles & pain medicine.



Computers/IT: Flash drives, laptops & mobile devices.



Furniture: Beds, chairs, stools & outdoor furniture.



Construction: Beams, shingles, screws & nails.



Food: Frosted donuts, canned veggies, licorice & cereals.



Textiles/Clothing: Socks, shoes, shirts sunglasses & jewelry.



Automotive: Car frames, engines, horns, gas caps & cup holders.



Aerospace: Airplanes, helicopters, & space capsules.



Household: Lamps, microwaves, toothbrushes & refrigerators.



**TECHNOLOGY is
Manufacturing...
MANUFACTURING is
TECHNOLOGY.**


**See this cell phone?
EVERY part of it,
including the battery,
is MANUFACTURED!**

JOBS IN MANUFACTURING

The opportunities are endless.

- CNC Machinist
- Assembler
- Fabricator
- Welder
- Cutter
- Operations Manager
- Engineer
- Buyer or Purchasing Manager
- Technician
- Service
- Robotics
- Mechatronics
- Automation

**Check out the cool ways
manufacturing is changing
lives at www.edgefactor.com!**



*"As manufacturing professionals, we provide,
truly, literally, and constantly, the tools that
make a technological civilization possible!"*



Productivity Inc



Haas
F1 Team
OFFICIAL MACHINE TOOL

HAAS FACTORY OUTLET
A Division of Productivity & MMT



Haas Technical Education Community



Scan To Apply

MANUFACTURING



CTE Igniting Interest at Fergus Falls



Fergus Falls Public Schools

One of the age-old questions regarding education is whether the purpose of education is to prepare students academically or to prepare them for the world of work. In Career and Technical Education, we know the answer to this question is both. At Fergus Falls High School we have a strong CTE program that is long-standing and forward thinking. Two of these programs include our Manufacturing and Agriculture programs.

Our Manufacturing program is housed in our Roosevelt Education Center. Students are able to walk between this building and our main campus. Several years ago, manufacturing partners in our community saw a need for updates in our lab and raised a significant amount of money for upgrades to the facility and new equipment that would give our students a realistic view of what is being used in industry today. All of our 9th grade students have the opportunity to utilize these resources in our required Introduction to Technical Education class. This class serves as a way to ignite interest in students who can go on to enroll in our other manufacturing classes. These classes

include Fabrication I and II and Metals I, II and III.

Five years ago, our school saw the need to help students make the connection between what they were learning in the classroom and what is happening in the world of work, so a Work-based Learning coordinator was hired to bridge this gap. We are proud to say that our students coming out of our manufacturing classes at Fergus Falls High School are prepared to enter the workforce at an entry level position. They are also OSHA-10 certified through our WBL program. So far, we have three manufacturers in town who are committed to working with our students in a work-based learning relationship. Each of these businesses has gone through the Youth Skills Training approval process so are able to hire 16-17 year olds to work as welders in a paid internship experience. Cyndi Young, HR Manager at one of our partner programs, had this to say about our program. “We have had some great students working here as part of the Work-based Learning Program. They are able to expand their skills in welding and take this trade with them for their future. We

have also had a couple students continue employment with us after they graduated. This is a great program for the Fergus Falls Schools and we hope it continues.”

Since having these businesses approved, we have placed five of our students in this program and hope there are many more to come. As Cyndi stated, we are seeing students staying on in these positions after the program is complete and becoming a part of the workforce. Bringing our students into the manufacturing workforce brings the donations of our manufacturing partners full circle. The investment they made years ago is starting to show returns for them in the form of an educated, skilled workforce.

Agriculture is another growing part of our CTE program, housed in our Roosevelt Education Center. In fact, this past year we added a full-time staff person to this department. This coming year, we are able to offer Agribusiness: Sales and Marketing, Landscape Design and Horticulture, Natural Resources and Wildlife Management, Plant Science/Agronomy

Continued on Page 20

Internships — A Valuable Option



Robert Judson, Marketing Specialist
Metal Craft and Riverside Machine and
Engineering

“It’s our job to figure out how to do the impossible — to get creative and to accomplish what others say can’t be done.”

Learning a trade can be a great option for students who are interested in gaining practical skills and entering the workforce quickly. Trades such as CNC machining, plumbing, electrical work, welding, and carpentry are in high demand and can provide students with stable, well-paying careers. In addition,

many trade schools, technical colleges, and apprenticeships offer hands-on training and real-world experience, which can be invaluable to students. Learning a trade can also be a cost-effective alternative to traditional four-year degree programs, as many trades offer competitive salaries without the high costs of college tuition. Overall, learning a trade can be a great option for students who want to gain valuable skills, enter the workforce quickly, and secure a stable career. With so many options out there, what is the best way a young person or student can find out what trade fits them the best? Finding a great internship may

be a great option.

Internships like the ones we offer at Metal Craft and Riverside Machine and Engineering are important to students because they provide them with valuable hands-on experience, help them explore career opportunities, and prepare them for the workforce. Internships allow students to apply what they have learned in the classroom to real-world situations and gain practical experience in their chosen field. They also provide students with the opportunity to network with professionals in the industry, which can lead to future job opportunities. Internships can help students make informed decisions about their future careers, develop important skills, and stand out when applying for future jobs. Overall, internships provide students with a competitive edge in the job market and help them prepare for their future careers.

- Help students explore career opportunities in the manufacturing industry
- Prepare students for the workforce by developing important skills such as problem-solving, teamwork, and communication
- Help students make informed decisions about their future careers by exposing them to various job roles and responsibilities within the industry
- Help students stand out when applying for future jobs by giving them practical experience in the field.

One of the most significant benefits of

internships in manufacturing is the chance to gain practical experience. Many students have little experience working in manufacturing, and internships provide them with the opportunity to learn about different manufacturing processes, techniques, and technologies. This experience can help them develop important skills that they can use in future careers, such as problem-solving, teamwork, and communication.

An Internship in manufacturing can also help students prepare for the workforce by providing them with valuable skills and experience that they can use in future jobs. By working in a manufacturing facility, they can develop a strong work ethic, learn how to work in a team, and gain experience using different types of machinery and equipment. These skills can help them stand out when applying for future jobs and make them more valuable to potential employers.

In conclusion, internships are vital because they provide young people with hands-on experience, that help them explore career opportunities, and prepare them for the workforce. Manufacturing is a critical sector of the economy, and providing students with opportunities to gain experience in this field can be an excellent way to help them prepare for their future careers. By working in a manufacturing facility, students can develop important skills that they can use in future jobs, learn about different job roles and responsibilities, and gain practical experience that can help them stand out in the workforce.



METAL CRAFT

RIVERSIDE

BUILT RIGHT. EVERY TIME.

Are you ready to use your skills in the aerospace, defense, and medical industry?

We are Riverside Machine and Engineering. For over 40 years, we have provided outstanding quality, service, and innovation by employing people like you with the skills and willingness to learn, grow, and advance.

Join our team of extraordinary men and women that are dedicated to changing the lives of countless people around the world through precision machining.

APPLY ONLINE TODAY

mcandrs.com/careers



Manufacturing Careers at Mankato Continued from Page 10

machining equipment. They utilize metal inert gas (MIG), tungsten inert gas (TIG), and shielded metal arc welding (SMAW) processes. Students utilize Computer Numerical Control (CNC) plasma cutters, oxy-acetylene cutting torches, saws, and shears to cut material. They also utilize manual and CNC machines to complete projects. Students learn about print reading, measurement, and CNC programming while completing projects. Students design various aspects of their projects to incorporate unique characteristics into common coursework. Students' projects are sandblasted and painted on-site. We work with a community partner for media blasting and powder coating of advanced projects.

Our MAPS high school students complete internships at local businesses that participate on our advisory board. These internships focus mainly on welding, but we do have some CNC machining partners. The internships are paid and often

result in full-time employment. Students participate in internships during the 11th and 12th grades.

Mankato East teacher Dave Evans, "This program is not possible without our outstanding community partners. These include local industries and universities that help design curricula, provide resources, and facilitate equipment updates/exposure to new equipment."

Virtual reality career exploration allows students to work with virtual tools, machinery, and processes, providing them with a realistic sense of what it would be like to work in manufacturing. The simulations can incorporate different jobs, such as welding, metalworking, and assembly, and can also include workplace safety protocols, teaching students the importance of safety in the workplace.

The implantation of virtual reality career exploration is particularly effective for middle school students who may not have access to hands-on experiences or

who are unsure about their future career aspirations. This technology offers a non-threatening way for schools to expose students to a wide range of manufacturing jobs.

By using virtual reality to allow our students to explore the manufacturing industry, our students can develop important skills such as problem-solving, communication, and teamwork. They learn how to work effectively in a team, communicate clearly, and solve problems collaboratively.

www.isd77.org



Three Robotics Teams Headed to Worlds! Continued from Page 16



Iron Mosquitoes headed to Robotics World Championship

This year the Iron Mosquitos won the First Impact Award, which is the most prestigious award given out to robotics teams in our multi-state region. This earned them the right to compete with their robot at worlds in Houston Texas against the best robotics teams on the planet. They will also be competing for the worldwide First Impact Award, which recognizes the impact the Iron Mosquitos have had for several years on the kids, school, com-

munity, and region to help bring awareness and opportunity to experience robotics.

You can watch and cheer on the Iron Mosquitos in action at Worlds in Houston, TX on April 21st and 22nd: www.thebluealliance.com/team/5653

Thank you to those of you who choose to support our team and help us get to worlds.

To support the Iron Mosquitos journey to worlds, visit their GoFundMe campaign below.

► www.gofundme.com/f/iron-mosquitos-trip-to-worlds

The teams have until April 15th, to raise the funds to cover their costs for transportation, lodging, and miscellaneous expenses associated with competing at worlds. If they can raise these funds, all of their dedicated and hardworking team members can travel to be a part of this regardless of their financial situation. They have all earned it! Please help them all to be there, by supporting these Minnesota teams before the world.

CTE at Fergus Falls Continued from Page 18

and Veterinary Science. Our students also have the opportunity to enhance their skills by being part of our strong FFA program that builds leadership as well as technical skills.

As with our Manufacturing program, our Agriculture Program has a work-based learning piece in place to tie classroom learning to real world work. One of the companies, that had two of our students apply and work for, had this to say, "We believe in connecting students to career opportunities and exploration programs. We value the partnership with educational partners, such as Fergus Falls Public Schools, and the valuable programming they have created to best serve their students and community. It is these relationships that will help build a future workforce in the agricultural industry and assist in building strong talent pipelines across Minnesota." Another company has developed a high school internship program that we have teamed up with. Both of these businesses also offer sponsorships for our students who go through the program. This is a win-win for the business and the students.

We have also been able to place students from our Veterinary program in our local veterinary clinic. One of these students will be starting a Vet Tech program this fall after this experience confirmed for her that this is the career path she would like to pursue. The classroom knowledge gained in our Vet Science class is an asset to students who are placed in this hands-on setting.

As we look to the future in our manufacturing and agriculture programs, we will continue to build upon what we have found to be true in the past. Our job as educators is



to build academic and workplace skills and to give our students the opportunity to put them into practice in real world settings.

www.fergusotters.org



Next Generation Nursing Assistant Initiative Awards Equipment Grants to 24 High Schools

After meeting the initial goal of recruiting and training 1,000 new nursing assistants, the Next Generation Nursing Assistant (NGNA) initiative has received additional funding and will be offering more free training throughout the state.

The NGNA initiative, a collaboration of the State of Minnesota and Minnesota State, has awarded \$98,800 in equipment grants to 24 Minnesota high schools. School districts will use this funding to purchase or improve lab equipment and materials necessary for nursing assistant training.

“These grants will help connect high school students throughout the state to job training for an in-demand career.” - Minnesota Office of Higher Education.

According to employment data from the Minnesota Department of Employment and Economic Development, nursing assistants are the sixth highest demand job in the state. The COVID-19 pandemic only exacerbated the need for qualified nursing assistants. This initiative invests in the future health of our state by providing trained workers who will fill vacant positions at hospitals, long-term care facilities, and veterans’ homes throughout Minnesota.

The initiative provides Minnesotans with free training, books, uniforms, and covers the

cost of the certification exam. Since beginning in December 2021, 2,306 Minnesotans have completed, or are in the process of completing their training, strengthening the state’s health care workforce pipeline.

Available courses can be found on the website at www.ohe.state.mn.us/CNATraining. Those interested in enrolling in the free training are encouraged to check back often as new courses will continue to be added as they are made available. Courses will be offered throughout the state, in-person and hybrid, on Minnesota State campuses and at many private training providers.

Schools awarded grants/amount

- Burnsville-Eagan-Savage District 191/\$5,000
- Fergus Falls Public Schools/\$5,000
- Wright Technical Center/\$5,000
- Cass Lake – Bena Public Schools District 115/\$5,000
- Forest Lakes Area Schools/\$5,000
- Shakopee Schools/\$3,116
- SouthWest Metro Intermediate District/\$4,946
- White Bear Lake Area Schools/\$5,000
- ISD 728/\$4994



- Marshall School District/\$4513
- Northeast Metro Intermediate School District/\$5,000
- Duluth Public Schools #709/\$5,000
- Plainville – Elgin – Melville Community School/\$4,455
- Sartell School District/\$5,000
- Brandon-Evansville School District/\$2,200
- Cook County ISD 166/\$3,736
- Hutchinson Public Schools/\$1,118
- Lincoln International High School/\$5,000
- West Central Area Schools District 2342/\$5,000
- Greenway Public Schools/\$1,997
- Milaca ISD 912/\$4,206
- Osseo Area School District/\$2,800
- Rushford Peterson Schools/\$2,501
- Redwood Valley High School/\$3,200

Courtesy of the Minnesota Office of Higher Education

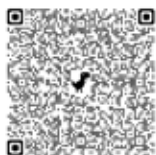
A career in healthcare offers you the opportunity to make a difference in the lives of others

Get your bachelor's degree in just 3 years in the following:

- Nursing
- Radiologic Sciences
- Radiation Therapy
- Surgical Assisting

Why choose Bellin College?

- Direct-entry programs
- Get your bachelor's degree in three years
- Degrees for high-demand careers with excellent earning potential
- A focused curriculum
- Small class sizes
- Experienced, knowledgeable faculty
- Extensive hands-on and clinical practice
- Licensure exam pass rates exceed national averages
- Transfer courses accepted from accredited two and four-year colleges



Join us!

Campus Preview Day
April 22, 2023

Learn more at bellincollege.edu/visit or scan the code.

Bellin College



Osseo Senior High Schools Health Science Magnet Program



Osseo Area Schools

At Osseo Senior High School (OSH), scholars in the Health Science Magnet Program get hands-on, work-ready experience in the health science and medical fields.

“We are trying to give our students the opportunity to get a jump-start in their health careers,” said Andrew Klaers, Health Science Curriculum Integration Coordinator.

The Health Science Magnet Program is designed to support and build future leaders in the health science and medical fields. The program provides authentic learning experiences that prepare scholars to achieve their future goals in medicine. Students develop practices through hands-on, project-based experiences in a professional work setting. Health Science students graduate from high school with college credits, professional certifications, internship experiences and relationships with industry professionals.

Health Science scholars can choose from four different program paths:

- Emergency Medical Services
- General Medicine
- Mental Health
- Nursing



Program benefits

- Prepares students for a potential career in health science or medicine.
- Builds essential patient care skills through hands-on learning experiences.
- Offers opportunities for students to build relationships with professionals in the medical industry.
- Provides options for students to earn credit at designated colleges, saving time and tuition.
- Helps students build a resume that will set them apart when applying to medical programs.

“A highlight of this program for me is watching as students all of a sudden figure out what their potential is. Sometimes school is a struggle, but then they get into a program doing hands-on work, and they can all of a sudden see themselves having a pathway going forward,” said Steve Mills, an Instructional ESP with the program.

Dave Casella, who participated in the program when he attended OSH and has taught in the program for 28 years, likes that the program allows scholars to get a head start before it is high stakes and they have to pay for the education they’re receiving.

“It is important to have the exposure to career and technical education in a high school experience,” Casella said. “This program lets students try out and see if this is a field they’re interested in. The information they are learning is beneficial to their life, whether they go into that field or not.”

Scholars can choose to focus on one of four medical field paths: emergency services, nursing, general medicine and mental health. This helps to construct a successful path through the program and allows scholars to align course choices and internship opportunities with their career goals.

Scholars in the Health Science Magnet Program have the opportunity to take a

variety of classes, including Exploring Health Careers, Medical Terminology, Bioethics, Nursing Assistant, Sports and Exercise Health, Anatomy and Physiology, Pharmacy Technician and a Health Care Internship class. The program works with many community partners to provide scholars a hands-on, work ready experience.

“It’s not just about, ‘you need to learn these skills.’ They also learn about life and caring about others. I think it is a valuable course for students to be able to take,” said Wanda Nelson, who works with scholars specializing in the nursing path.

While the program takes place at OSH, scholars from Maple Grove and Park Center Senior High Schools have the opportunity to enroll in the courses as well.

In one of the classes, scholars started in the classroom with their teacher, Erik Bryz-Gornia. They then moved to the work space lab, where Bryz-Gornia demonstrated two emergency medicine procedures that would be on a state test for a certification. The scholars then practiced the procedure themselves, working as a team.



To learn more about the Health Science Magnet Program and find out how to apply, visit the program website <https://osh.district279.org/academics/health-science>

www.district279.org



Program Academies

Emergency Services

Students in the Emergency Services Academy learn life-saving skills through hands-on emergency scenarios and labs. Students build skills in leadership, confidence, and collaboration. They have the opportunity to earn several professional certifications as they work towards EMT status; first aide, CPR, CPR Instructor, Emergency Responder, and Emergency Medical Technician (EMT).

OEC requires service hours for course completion. They can be involved in teaching CPR classes, providing First Aid at events, training Boy Scouts, and the Adopt-a-Family Program, which provided families in need with gifts during the holidays.

General Medicine

Students in this academy take high level math and science courses to prepare for a university nursing program or pre-medical program with the intention of applying to Medical School.

Industry certifications are available in Medical Anatomy & Physiology, and Pharmacy Technician.

Many of the courses in this academy are college level material. Students can earn articulated college credits when they earn a B or better in these courses.

Nursing

The Nursing Program gives students an opportunity to learn and apply care skills such as taking vital signs, transferring patients, feeding patients, and patient personal care.

Students develop the core competencies required by the MN Nursing Competency Exam and are eligible to take the exam upon the completion of the course to earn Nursing Assistant Registered Certification. This certification allows students to work as active nursing assistants in care facilities throughout the state.

Many of the courses in this academy are college level material. Students can earn articulated college credits when they earn a B or better in these courses.

Mental Health

Students in this academy complete coursework that builds a Mental Health knowledge base, paired with high level math and science options to create a comprehensive preparation experience.

Industry certifications are available in Medical Anatomy & Physiology, and HIPPA.

Many of the courses in this academy are college level material. Students can earn articulated college credits when they earn a B or better in these courses. Additional college credits can be earned through AP Psychology and any AP Science course taken.

ALEXANDRIA TECHNICAL & COMMUNITY COLLEGE

SCRUBS CAMP



June 14-15, 2023 | 7:30-4:30 Daily

Scrubs Camp offers hands-on healthcare-related experiences for students entering grades 9-11. Students will have fun with simulation and interactive team-building activities, all guided by healthcare professionals.

Total Cost: \$125

Limited spots available! Each student will receive a pair of scrubs to keep. Breakfast, lunch, and snacks included. Scholarships available.

**MORE INFO/REGISTER:
ALEXTECH.EDU/SCRUBSCAMP**



alextech.edu • go@alextech.edu

320.762.0221 • 888.234.1222

1601 Jefferson Street • Alexandria, MN 56308

» RANKED MINNESOTA'S BEST COMMUNITY COLLEGE 3 YEARS IN A ROW AND #3 IN THE NATION

**HYBRID ONLINE NURSING ASSISTANT (CNA) CLASS BEGINS IN JULY
AGES 16 AND UP // ALEXTECH.EDU/CNA**

A Member of Minnesota State | An Equal Opportunity Employer/Educator | Alexandria Technical & Community College is committed to legal affirmative action, equal opportunity, inclusivity, access and diversity of its campus community. alextech.edu/EEO



Minnesota Students Manage Their High School's LEED Recertification at ISD 196



The School of Environmental Studies' sprawling campus of trails through forest, prairie and pond is located on the property of the Minnesota Zoo. Photo courtesy of the School of Environmental Studies.

Calvin Hennick

Some of the students who took a class on LEED certification last year at a Minnesota high school didn't know quite what they were signing up for.

"I literally knew nothing about this class," says Morgan Townshend, who just wrapped up her senior year at the School of Environmental Studies, a two-year magnet school for juniors and seniors in Apple Valley. "It was called 'Green Building Literacy,' and I thought: That's kind of a crazy name, let's see what's up with that."

"I needed an English credit to graduate," says Saturn Cortez, another newly minted graduate of the high school. "I was pleasantly surprised to see that we were doing LEED recertification for our school."

The School for Environmental Studies has an active partnership with (and sits next to) the Minnesota Zoo. Half of students' time is devoted to an interdisciplinary environmental studies class, and teachers at the school embrace project-based learning. Still, the green

building literacy class presented students with a new type of challenge—one that some of them weren't expecting, but one that they rose to meet.

The school had received LEED Gold certification for operations and maintenance in 2019 and was the first in the state to certify through LEED v4.1. Now, students found themselves in charge of the real-world effort to achieve recertification for the building.

A different group of students assisted with the original certification effort in 2019; several students participated over a number of years, and the teacher that led that effort retired before the recertification process began.

"The pandemic hit, and we had three years of data that we needed to collect," says Brooks Autry, who taught the green building literacy class that tackled recertification. "There was no one who was paid to do it, and no one who was ready with all of the skills and all the knowledge that we needed. I really care about us walking the walk, and not just saying that we're about sustainability. So, I was really excited about the LEED certification, and I

wanted to make sure that we would retain it."

Gaining Hands-On Experience

Autry classified the LEED recertification course as an English class, due to the amount of oral and written communication that the work requires. "When we recruited for this course, not everyone really knew what the class was," he says. "Some thought it was about writing, and others knew that there was a project management element. Those students were really strong students who already cared about sustainability going into it. And then we had a handful of students who just needed an English credit. It gave us a cool diversity of students who were working on these projects."

Stephanie Leonard, associate director of market transformation and development for the West North Central region at USGBC, says that the school was the first LEED certification effort led by high school students. The organization, she says, is working to facilitate similar efforts at other schools in the future. "I think there's an opportunity, where COVID has made everybody more aware of our buildings, including high school students," Leonard says.

At the college level, Leonard notes, the LEED Lab course offered by a number of colleges and universities gives students real-world

experience with green building certification and prepares them to sit for the LEED AP O+M (Operations and Maintenance) professional credential exam. A high school course specifically focused on the students earning LEED certification for their school is really unique, says Leonard, who doesn't know of any other high schools that have achieved LEED certification through a student-led program.

"Now, more than ever, we can look at a future where these students are going to be impacted by sustainability and climate change throughout their entire lives," Leonard says. "This is an excellent base for them to get their studies off the ground, and for them to understand how they're impacting the world, and what it means for us to spend 90% of our time indoors. On top of that, there's a lot of great coursework. There's math involved, and science, and English literacy. And the course gives students hands-on experience with what they can do and how they can impact change."

Working the Phones

Autry began the class by allowing students to help determine how they would be graded.

Continued on Page 25





Friends of the Prairie Wetlands Learning Center



The Prairie Wetlands Learning Center, located in Fergus Falls, Minnesota, is a residential environmental education facility operated by the U.S. Fish and Wildlife Service. The Friends of the Prairie Wetlands Learning Center was developed to enhance and promote the understanding and conservation of the prairie pothole region, primarily through support of the Prairie Wetlands Learning Center.



The Center offers a variety of environmental education programs to learners of all ages, as well as teacher workshops and training sessions for wildlife professionals year-round.

Contact us to find out about opportunities for both students and educators!

602 State Highway 210 East
Fergus Falls, MN 56537-4217
218-998-4488

www.friendsofprairiewetlands.com

LEED Recertification at ISD 196 Continued from Page 24

(They decided that they should be scored primarily on their participation and effectiveness, rather than on academic assignments.) Autry also worked to reach out to USGBC and community organizations for assistance guiding the students through LEED recertification, and the young people spent the first weeks of the course watching videos and taking notes about the process.

Essentially, students were learning about LEED recertification the same way many professionals in the field learn about new processes—not by reading textbooks or listening to a teacher’s lectures, but instead by scouring online resources and connecting with people in the field. In addition to support from USGBC staff, the students had volunteers from HGA, a member company with USGBC, helping them with pieces like indoor air quality testing.

Since the project was originally certified, as well as being recertified, under LEED v4.1, Arc was the platform used for certification. Arc, which helps building stakeholders measure, analyze, score and communicate performance data, allowed the students to easily enter data for the building.

“It was so convenient that there were videos telling us exactly how to use Arc Skoru—what things mean, and where to go for questions,” Cortez says. “For the first month and a half or so, it was definitely the blind

leading the blind. The class is very student-led. It really feels like a workplace, and our teacher is the manager. We lean on him for assistance, and he’s able to guide us. We were all in the position of: We don’t know everything, and so let’s figure it out together.”

“The school has a whole focus on project-based learning, and this class took that one step further,” says Townshend. “It pushed us to say: The learning is in our hands. What are we going to do with it? How are we going to keep moving forward?”

In a typical high school class, students are given credit for simply completing the work asked of them, but students in the green building literacy course soon found out what most people in the professional world already know—that merely sending an email or making a phone call often isn’t enough to make things happen, and much of the real work often comes in the form of following up and following through.

“For me, a big takeaway from this class was persistence and getting that real-world experience,” Townshend says. “Yes, I’m just a student, and I sometimes felt when I was reaching out to these places, that they treated me that way. But I kept going, and eventually I was able to get the information we needed. Having that real-world experience is really important as I make the transition to college.”

Leonard notes that high school students often lack experience with communication methods that professionals take for granted, such as telephone and email (preferring instead to text or engage over social media). “When I worked with the first class in 2019, I found out that email wasn’t a super important thing for them,” Leonard says. “I told them, ‘There are documents and timelines and people I need to connect you with in the professional world, and those people check their email every day. You need to be checking yours, at least as it pertains to this LEED project.’”

Townshend says she was initially nervous making calls to professionals, but that nervousness quickly went away. “The first call I made in November, I had to call three more times after that, that same day,” she recalls. “By the third time, I was like: I got this, I know what I need to say. It just started coming naturally. I don’t get phone call anxiety anymore. I’ll do what needs to be done to make things happen.”

Making an Impact

Autry credits his students’ diligent work with not only paving the way for the school’s LEED recertification, but also for creating new programs and educating students and staff on sustainable practices. “We realized, because the LEED score covered so many different facets of our building—waste, energy, transportation, water—that yes, the kids could track the data and put it into Arc and feel successful about the score, but also they could realize where we’re at and then try to develop initiatives that would improve our score.”

Students helped develop policies to promote a reduction in resource consumption—for instance, a new system where students order their lunch at the beginning of the day, which Autry says “dramatically reduced” food waste at the school. Additionally, they applied for and won a state grant for solar panels, which are scheduled to be installed in the fall.

Students also became certified as master recyclers and composters, and Townshend led an hour-long Earth Day program on waste prevention methods for her peers. “Earth Day is like a holiday at our school,” she says. “I really wanted to teach about waste and all the things I’ve learned this year. I compiled a presentation about behavior changes to reduce our waste, and how to sort your trash and recycling. I spent a lot of time working on that presentation and practicing my presentation skills. I feel silly because it’s garbage, but I think it’s fun.”

“I feel like I’ve made a massive impact,” says Cortez. “I’ve not only learned a lot, but



I’ve also brought more home to my family than I ever thought I would. We didn’t know that we could apply for a solar grant and possibly get solar panels on our roof. I absolutely learned an abundant amount that I am elated to continue to share with people as I grow into an adult.”

Looking Ahead

Cortez says that working to recertify her school has made environmental concerns seem more real to her. “Before going into the class, I knew that Australia was on fire, and there were just loads of climate change that would affect us,” she says. “It was really big-picture things that I could see. As important as that is, this class gave me a more focused view on my area and what I can do to support that. As one person, I am unable to solve global warming. But you can make a difference in your community.”

The students have continued to expand their impact, Autry says, by working to help a local elementary school with LEED certification and conducting a waste audit at that school. He says that students felt empowered by the chance to work so directly on sustainability issues. “I think kids don’t feel that empowered to make a change if the opportunity’s not there,” he says. “If you don’t see an opportunity, you’re probably not going to step out to try to do something about it.”

Townshend says she’s “grateful” that she took the class. “I learned so much, and it made me realize that many kids do not have the opportunity to experience LEED or all of the activities that come with that,” she says. “All students should have the chance to step up and be a part of something bigger, as well as develop professional and real-life skills. I think a class like this should be taught in all schools.”

“It’s a privilege,” Townshend adds. “And it’s freaking cool.”

Article courtesy of the U.S. Green Building Council



LEARN ABOUT ARCTIC WOLVES



Free Virtual Field Trips

Through two-way videoconferencing on Zoom, our educators and ambassador wolves will keep your students on the edge of their seats while learning about these mysterious predators in a LIVE program from northern Minnesota!



International Wolf Center
1396 Highway 169, Ely, MN 55731
218-365-4695

WOLF.ORG

*Discount not available for non-school groups.
Non-school groups will be invoiced \$75.*





Agriculture is Outstanding at Staples Motley Schools!



Staples Motley Agricultural Education Team

Striking the balance between big-school offerings and small-school feel, Staples Motley Public Schools offers diverse opportunities typically offered by larger institutions, and small-school climate and culture.

Our agricultural education program currently consists of 3 full-time instructors. We are a very young team of teachers who are new to the profession. With all of the successes our program has achieved in recent years, we pride ourselves on being the youngest multi-person department in the state of Minnesota. However, we use our young energy to our advantage, creating curriculum that is engaging and relevant to our students.

Boasting multiple facilities including a

newly renovated agricultural mechanics shop, classroom, office, greenhouse, school forest and high tunnel; offering a cycle of nearly 30 rigorous courses to prepare 5–12 grade students for careers, the Staples Motley Agricultural Education Program has a rich history of engagement and service on a local, state and national level.

Our courses are inquiry-based and student-centered. This lends itself perfectly to teaching courses that are science-based.

In 2020, we capitalized on an opportunity to develop an agricultural chemistry curriculum due to a resignation in the science department. Joe Ramstad was able to launch this program in Fall 2020 which has significantly contributed to the spike in enrollment and opportunities available to the students and stakeholders engaged

in our program while building a strong, collaborative and meaningful partnership with our school's K–12 science and STEM departments. Students who would typically struggle in a chemistry or physics course are able to shine in our agricultural chemistry courses as they receive access to these concepts in a more tangible and applicable venue.

When looking at the program framework as a whole, our students and colleagues have described our agricultural education curriculum as hands-on, organized, career-oriented and rigorous. We find value in building our curriculum using the AFNR content standards while infusing literacy strategies, STEM skills, state standards in the areas of science, art, math and language arts to foster a connection between other content areas and the AFNR industry.

We provide programming at public events and utilize these platforms to promote our program and the agriculture industry. We are fortunate to have supportive administrators, an engaged FFA Alumni and advisory board, along with many generous community members and organizations to make our students' goals and visions a reality.

In 2019–2020, Joe Ramstad served as the school's Work-Based Learning (WBL) Coordinator. While serving in this role, he created an employability bootcamp to provide students with hands-on training regarding workplace safety, resume and cover letter development,



interviewing skills, goal setting and more. This curriculum has been shared widely across the state and even nation for other teachers to utilize in their WBL or agribusiness courses.

During their time teaching the course, both Joe and Peter conducted worksite visits and met with students and their employers to solicit feedback, document learning and reflect on opportunities for each student's growth. Students finish the course by completing a reflective portfolio and an exit interview. Many students in the WBL program work in production agriculture settings such as swine, poultry, beef and dairy farms as well as in mechanical settings such as working in automotive and small engine repair shops and in construction.

The Staples Motley Agriculture Program was named Outstanding Middle/Secondary Ag. Ed Program for 2022 by the Minnesota Association of Agricultural Educators (MAEE).

www.isd2170.k12.mn.us



Teacher Spotlight: Tiffany Kobbermann

Family and Consumer Science teacher, Minnewaska Public Schools



Tiffany is a very active member with Pope County Farm Bureau and currently resides as the county president. Pope County is well known for their active members engaging in school activities, helping to host the

high school Ag Career Day, and also putting on the Pope County Breakfast on the Farm, which serves 2,7000 meals and hosts educational activities annually. Along with county activity, she is also a member of the Minnesota Farm Bureau Federation Promotion and Education Committee. As part of this committee, she helps to host agricultural events, Ag in the Classroom activities, hosts online educational opportunities and helps to promote positive mental health to farm families all over the state.

The FCS and AG department at Minnewaska Schools has partnered up with Pope County Farm Bureau to offer a CTE based career day to students in grades 7-8-9. The goal of the partnership is to expose students to as many careers as possible within the 3-county area, showing students that there are great jobs available right where they live. Having 14 in-house speakers, students rotate halfway through the day and also have the

experience of touring 3 businesses within the community. This has been a very positive partnership that has been embraced and readily welcomed. With recent workforce shortages, the school received fantastic feedback from local businesses thanking these 2 teachers for sharing opportunities to the students. Minnewaska school also offers Co-op Placement and Apprentice Experiences as class opportunities to gain employment skills as a Senior.

All of Tiffany's foods' classes are agriculturally based, starting from planting to harvesting and the path it took to get to a person's kitchen table. Tiffany believes that it is important to know that the food item does not just come from a grocery store, it involves skilled workers, animals, plants and technology from all over the world.

Tiffany was recently selected to be one of the 23 teachers from around the world to be a member of the World Food Prize Foundation Global Guides Program. This is a 9-month

professional development program focused on connecting teachers to issues and ideas surrounding the themes of the World Food Prize. Tiffany was able to attend the World Food Prize Convention over MEA break and attend the Laurette ceremony at the Des Moines Capital Building. During the ceremony, the winner, Mrs. Rosenzweig acknowledged the work of the 23 teachers in attendance. This was the first time in history any teacher was acknowledged at the ceremony.

Tiffany was recognized as the Minnesota 2022 Outstanding Teacher by Agriculture in the Classroom (MAITC).

minnewaska.k12.mn.us



Ag Blossoming Again at NBAPS

*Patrick Tepoorten
Community Relations Coordinator
North Branch Area Public Schools*

Agriculture curriculum is blossoming at North Branch Area Public Schools (NBAPS) with the help and support of district resident and teacher Amanda Cook.

Initial agriculture classes were introduced in the Fall of 2022 at North Branch Area Middle School (Ag-Mazing) and the Norse Area Learning Center (Floral Design and Horticulture and Landscaping) to provide hands-on elective options. Cook undertook the effort to introduce more agriculture options after a five-year hiatus from education ended in 2021 when she came to North Branch Area Public Schools' Distance Learning Academy. With a re-invigorated fondness for educating and building relationships with students, she began advocating for agriculture offerings to make a comeback at NBAPS, with the help and support of Director of Teaching and Learning David Treichel.

High interest in the middle school and ALC programs this year, coupled with North Branch Area High School's (NBAHS) desire to provide an ever-widening range of career pathways and opportunities, has led to the creation of five new agriculture offer-



Students at the Norse Area Learning Center Planting hydrangeas with guest speaker Bailey Nurseries as part of horticulture learning.



ings at the high school starting in the Fall of 2023. These new offerings include Floral Design, Fish and Wildlife Management, Horticulture and Landscaping, Ag and Food Processing, and Supervised Agricultural Experience. All agriculture students will also have the opportunity to participate in

Future Farmers of America (FFA), an intra-curricular student leadership organization returning to NBAHS next fall along with the new course options.

Next fall's agriculture additions may be just the beginning. "We will be working with students and community members

seeking input on the future trajectory of the course offerings," said Cook, "but are very excited to continue this growth and offer more experiences and opportunities in agriculture."

High School registration for the 2023-24 school year indicates a wealth of student interest in these new offerings, with over 300 requests for Ag courses.

"Adding an ag program to the high school is a conduit to a variety of course offerings that directly lead to a wide range of future professions," said NBAHS Principal Clint Link. "I'm especially excited that students have the opportunity to show off their talents across the state and country through the FFA program, which provides for the authentic application of their learning."

www.isd138.org



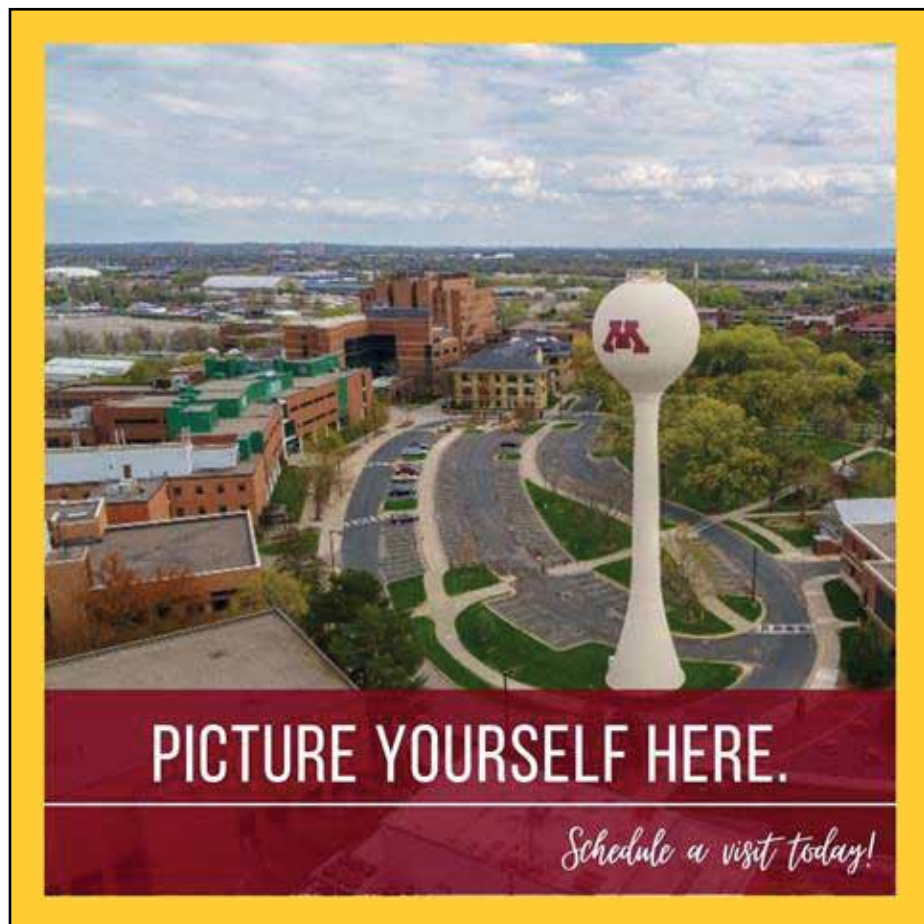
NORTH DAKOTA STATE UNIVERSITY

HUNDREDS OF CAREERS,
LIMITLESS POSSIBILITIES

- Hands-on learning • State-of-the-art facilities
- 11 to 1 student-faculty ratio • Scholarships

Learn more: www.ndsu.edu/agriculture/academics
COLLEGE OF AGRICULTURE, FOOD SYSTEMS, AND NATURAL RESOURCES

Change Lives, Teach Agriculture, Food, and Natural Resource Education



College of Food, Agricultural, and Natural Resource Sciences (CFANS)

"A teacher affects eternity; he can never tell where his influence stops." — Henry Adams

When we pause to reflect upon those individuals who have helped shape our lives, for many of us, a teacher comes to mind. Indeed, teachers do more than provide instruction about a content area. Regardless of the subject, they affect eternity and change lives!

However, there remains one content area that has been taught in Minnesota schools for more than 100 years and currently serves over 35,000 students in grades 7–12 that you may not be as familiar with. While the value of Agricultural, Food, and Natural Resources (AFNR) education is extensive, and its impact profound, unless someone has enrolled in school-based AFNR courses, participated in 4H or FFA youth organizations, or had familial connections to agriculture or food production, the concept of taking (or teaching) such courses in a middle or high school may seem foreign.

AFNR education prepares students for successful careers and a lifetime of informed choices through three inseparable and interdependent program components: Classroom Instruction, social-emotional skill development/FFA leadership, and work-based learning/Supervised Agricultural Experience. This integration means that AFNR is not "just a class", but rather a program which offers

countless leadership and career development opportunities.

What does AFNR education look like in Minnesota?

Due to increased demand for AFNR programming, there is a severe shortage of AFNR teachers. As such, career opportunities in AFNR education are abundant. With approximately 325 AFNR teachers employed at roughly 220 school districts across Minnesota, a large number of additional positions and staffing changes are expected immediately prior to the 2023–2024 school year.

AFNR programs offer coursework and experiences within seven career pathways: agribusiness systems; animal systems; food products and processing systems; environmental service systems; natural resources systems; plant systems; and power, structural, and technical systems. There are nearly 100 different approved courses ranging from Woods, Water and Wildlife to Moo to You: Dairy Science, and from Life on Your Own: Ag Careers and Resource Management to DNA, Droids and Drones: Ag Technology.

For whom might this be a good career?

If you love working with and mentoring young people, and have an interest in or affinity for the outdoors, animals, plants, or food, this may be the perfect fit! You do not need to have production agriculture experience, a

desire to "be a farmer", or live in a rural area. St. Paul, Minneapolis, Rochester, and Mankato — all larger, more urban Minnesota communities — already offer school-based AFNR programs and more programs are being established each year. You also are not limited to teaching in a classroom with an Ag Ed degree. Many graduates apply their honed teaching skills in careers in Extension, community education, and even corporate settings.

If this sounds intriguing, what should I do?

If AFNR education sounds interesting to you, or prompts you to think of a student, colleague, family member who may be interested, reach out to explore undergraduate, graduate, or additional licensure programs at the University of Minnesota — Twin Cities (email: aecm@umn.edu). Agricultural Education, Communication and Marketing program (<https://ag-ed.cfans.umn.edu>) faculty and staff are committed to student success and development. Our programs, offered from the St. Paul campus, provide a welcoming home away from home for students. The location allows us to offer the

best of all worlds: immediate access to rural, suburban, and urban school-based Ag Ed programs. Students will experience a high-quality, intentionally developed curriculum that meets PELSB standards for both 5–12 Agricultural Education and 9–12 Teacher Coordinator of Work-based Learning licensure. Courses are taught by faculty and staff who are constantly engaged in the agricultural education profession using teaching spaces and tools to support teacher development.

AFNR educational opportunities, at all levels, can be transformational, challenging, and rewarding. There has never been a better time to get involved personally, or encourage someone you know. Reach out to learn more about how you can Change Lives by teaching AFNR.

Amy Smith

Associate Professor, Agricultural Education
612-624-6590

Laura Rice

Assistant Teaching Professor, Agricultural Education
612-625-7274

Coming in the Next Issue of

TEACHING
TODAY MN™

Career Academies, Career Clusters, plus . .

Transportation Programs



&



Student Construction Programs

An opportunity to highlight these programs in your schools!

Please contact:

Andria — andria@teachingtodaymn.com 715-360-4875, or
Renee — renee@teachingtodaymn.com 715-839-7074



Mankato's FFA is Finding Success!

Mankato Area Public Schools

In 2019, after nearly 25 years of absence, Mankato Area Public Schools' (MAPS') FFA chapter returned to the district. With determination and strong leadership, the chapter's advisors have seen a 1000% growth in the past four years.

The chapter has worked tirelessly to develop programming and events that have had a positive impact on their community, and it is an honor for their efforts to be recognized at a state level. The chapter is committed to promoting agriculture, developing strong leaders, and building a sense of community, and this recognition is a testament to their dedication and hard work.

"Seniors graduating started this program as freshmen, and now it's starting to come full circle," said Mankato Area Public Schools FFA Advisor and ag food and natural resource instructor Ethan Dado.

Dado says the FFA hands-on projects with ag resources and networking opportunities shaped the district's program and events. There are 24 challenges, ranging from for-

estry to food science, in which Minnesota FFA members can compete. Some competitions are for individuals and others for teams.

"From freshman year until, I mean, now we've seen a huge increase in the amount of student activity in those events," said Molly Niedereger, a junior at Mankato West High School.

Mankato West Junior Molly Neidereger says she doesn't come from a family with an agricultural background. But, she joined the FFA to work on her leadership skills... and to learn how to take care of bees!

After receiving grants of \$2,000 from the National FFA organization, Neidereger, and the Mankato FFA raised two bee hives which they hope to crack open this Spring.

Mankato FFA received exciting news in March as they were named one of the Top 10 Chapters in the state for the National Chapter Award. This prestigious award is given to chapters for their overall programming and events hosted within the categories of Building Communities, Growing Leaders, and Strengthening Agriculture. FFA advisors say



that the state's recognition of Mankato will build its programs and sense of community. "Four years ago, this was just a dream. Now, we're here and really excited. The goal was to place in the top 10. So, to receive that news just leaves us ecstatic," added Dado.

MAPS' FFA gets an exact placement in

the top 10 at the State Convention on April 25th. And this nomination gives them a shot at a National placement this October.

www.isd77.org



FARM TO FORK

Department of Agriculture, Culinology® & Hospitality Management @SMSU



Learn about our many ag-related programs – contact us for information!

- ✓ Agricultural Education, BS
- ✓ Agricultural Solutions, BS
- ✓ Agronomy, BS
- ✓ Agribusiness Mgmt., BS/AS
- ✓ Agriculture, BAS
- ✓ Ag Comm. & Leadership, BS
- ✓ Culinology®, BS
- ✓ Hospitality Mgmt., BS

SOUTHWEST
MINNESOTA STATE UNIVERSITY

OFFICE OF ADMISSION
1501 STATE STREET, MARSHALL, MN 56258
800.642.0684 • WWW.SMSU.EDU



Contact Kristin Kovar,
Associate Professor of
Agricultural Education at
kristin.kovar@smsu.edu with
any questions or to request
information. **Learn more at**
www.smsu.edu/go/ag.





The Academy for Sciences & Agriculture's Plant Sale

Stephanie Forliti

Marketing and Communications
Academy for Sciences & Agriculture

The AFSA K-12 greenhouse is full of activity! Greenhouse Management and Plant Science students are busy learning the ins and outs of plant production by planting seeds, transplanting, deadheading and completing other essential plant care.

Students not only learn about the plants and how to care for them, they learn the business side of the horticulture industry as well. From deciding cost effective pricing to mar-

keting the sale. The culmination of their hard work is seen at the school's annual plant sale. Profits from the sale go to a variety of school wide activities and FFA opportunities.

With the wide variety of annuals, herbs, vegetables and fruit grown each year this sale is a popular community destination with many returning customers. Don't miss AFSA K-12's Annual Plant Sale May 11-13. The sale is held at the AFSA K-12 high school campus in Vadnais Heights (100 Vadnais Blvd. Vadnais Heights). Go to www.afsak12.com for more information about AFSA K-12 and the annual plant sale.

About AFSA

Whether students are working on their science fair project, planting in the greenhouse or heading out to help the community for Farm and Community Service Day, agriculture is everywhere and it is the heart of AFSA K-12. It has been over 20 years since AFSA opened our doors to bring agricultural education to urban and suburban students. The journey begins in the younger grades, agriculture studies focuses on local agriculture, environmental stewardship, agriculture consumerism, and human impact. Many lessons are taught in conjunction with Minnesota Ag in the Classroom. The 7-12 grade curriculum includes developing leadership skills and learning about career opportunities in five areas of AgriScience, including: Engineering; Animal Science; Plant Science; Environmental Science; and Food Science.

AFSA K-12 staff are all responsible for growing students' agricultural literacy by integrating agriculture topics into all classes and experiences.

Student's opportunities are continuously growing and evolving and don't stop at the classroom door. All grade levels are exposed to a wide variety of content areas and unique experiences within hands-on and practical learning applications that go above and beyond a typical classroom setting. With our own buses available to us, students K-12 have ample field trip opportunities which extend classroom learning. This may be to a park to explore the woods or to a coffee company to learn about fair trade. The high school's rooftop garden boasts raised bed planters built by AFSA's construction classes. The high school greenhouse is in the process of being converted to a one-of-a-kind hydroponic classroom. The school's

landscaping is done by the Landscaping class, and our Floriculture class makes the boutonnieres and centerpieces for special events. AFSA students take ownership of their school and design new clubs, activities, and propose school-wide changes.

Community is a big part of the AFSA K-12 culture. The school emphasizes family involvement, community support, and partnerships with agribusiness and educational organizations.

Each school year we hold two major fundraisers, our annual fruit sales and our spring plant sale. Plants for the sale are grown by our students in our greenhouse. Along with the plant sale comes the planting of the school's annual giving



15th Annual
AFSA High School
Plant Sale!

May 11- Opening Day! 3:30-6pm
May 12- 9am-6pm
May 13- 9am-12pm

Check out the huge variety of plants including tomatoes, peppers, herbs, and annuals.

All plants are grown and cared for by AFSA students.

Sales benefit students involved in FFA activities throughout the year!

100 Vadnais Blvd, Vadnais Heights, MN, 55127
www.afsahighschool.com

garden. Produce from the garden is donated to local food shelves.

Over the summer months the school participates in many local events. These events are a great way to help us bring science and agriculture to the community, AFSA style. Our Science and Ag on the Go activities are highlighted at a variety of events in our surrounding communities throughout the summer. AFSA's FFA officer team and student volunteers share their appreciation and knowledge of science and ag with the young families attending the events.

Twice a year the student body goes out into the community to volunteer and help local agriculture-related businesses with a variety of projects. Our Farm and Community Service Days not only give our students service experience but hands-on agricultural experience as well. Students help maintain city parks and rain gardens, prepare blueberry fields for the winter/summer, plant, harvest, and package fresh produce. Through Farm and Community Service Days, partnerships have grown with All Good Organics and the Maplewood Area Historical Society. These partnerships have given students more opportunities and continue to build the family environment AFSA is known for.

Agriculture opportunities for students continue with AFSA's FFA affiliation. All students in grades 7-12 are members of the local, state, and national FFA Organization making AFSA one of the largest FFA Chapters in Minnesota. The partnership with the FFA allows the school to provide additional opportunities such as CDE's (Career Development Events), SAE's (Supervised Agricultural Experiences), and

the AgriScience fair. AFSA's FFA Alumni coordinates the Annual Potato Hug each fall providing students the opportunity to sell wares that they have produced during their SAE. Students have a chance to truly experience being an entrepreneur. Join us for our 10th Annual Potato Hug October, 7 2023.

Agriculture is the foundation of everything AFSA. From the youngest grades to our graduates AFSA K-12 is bringing agriculture to urban and suburban communities. We are always looking for volunteers to be Science Fair Judges and Career Day Speakers as well as locations for our Farm and Community Service Day. Check out our website for more information about AFSA K-12 www.afsak12.com or contact our Executive Director, Becky Meyer at bmeyer@afsak12.com

AFSA's locations, in Vadnais Heights and Little Canada, allow inclusion of students from all north/east Twin Cities areas. Currently students from 19 different school districts attend AFSA. AFSA K-12 prepares students to be wise consumers, savvy decision makers, and successful, career-oriented lifelong learners. The unique curriculum with hands-on and experiential learning drives the success of the students through high school and beyond.

afsahighschool.com





CROOKSTON

WE ARE INSPIRING

the future

of

AGRICULTURE

MAJORS

- Agricultural Business
- Agricultural Communication
- Agricultural Education
- Agricultural Systems Management
- Agronomy
- Animal Science
- Applied Agricultural Communication Studies
- Environmental Studies
- Equine Business Management
- Equine Science
- Golf & Sports Turf Management
- Horticulture
- Natural Resources

Collegiate FFA & Shooting Sports

Collegiate www.uncrookston.edu g Sports



Cultivating future teachers

Students at the University of Minnesota with a major in the department of Agricultural Education, Communication & Marketing will gain:

- Hands-on learning experiences
- Engaging field experiences and internships
- High job placement after graduation in careers such as:
 - School-based Agriculture Teachers
 - Extension Educators
 - Youth Outreach Coordinators
 - Sales Representatives
 - Conservation Technicians

TEACHING CAREER OPPORTUNITIES:

- Minnesota has over 320 teaching positions in agriculture, food, and natural resources (AFNR) and demand continues to grow!
- Average starting salary for new AFNR teachers in MN in 2021-22 was \$45,034
- Scholarships and state/federal student loan forgiveness available



DID YOU KNOW?

TEACHERS AND STUDENTS HAVE ACCESS TO FREE RESOURCES FROM AECEM:

- Campus and classroom visits
- Workshops for clubs and organizations
- **AgriCast** online resource platform
 - Lesson plans
 - Podcasts
 - Virtual field trips
 - Video library, and more!

NOMINATE A FUTURE TEACHER

Do you know someone with an interest in agriculture, food, and natural resources who would excel as a teacher?



SCAN TO NOMINATE A FUTURE TEACHER!

Learn more online at z.umn.edu/AECM or email aecm@umn.edu.

