

Interface

Journal of the WTEA

SCIENCE

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ENGINEERING

MATH

Volume 56 Number 1

Fall 2016

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WTEA Refund Policy

The WTEA Membership fee is not refundable. The WTEA School Subscription fee is not refundable, but is transferrable to other staff in the same school district. The portion of the non-member conference registration fee equal to the amount of the WTEA membership fee is non-refundable. Refunds for Conference Registration and/or Awards Banquet must be received by US Mail or by email at least 15 days prior to the event. Exhibit space cancelled after Jan. 10th will be subject to a \$100 cancellation fee. No refunds will be given for exhibit cancellations within 45 days of the event.

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From the President's Desk

By Steve Meyer, WTEA President

Hello WTEA Members. I hope all of you have had some time to relax, spend time with family, and reflect over the summer. For the most part, I took the entire summer off for one of the first times in my teaching career. I spent my time with my boys playing baseball, going to the pool, and just enjoying watching them play. I was constantly reminded how great it is to be a kid in the summer. I honed my skills finishing up an outdoor pergola, building furniture, rebuilding a vintage motorcycle, and running electrical to my patio. Some of these things I am not super comfortable with doing, but I figure you have to learn somehow. The last month has been busy coaching football. Coaching is one of the only things that keeps my mind off the daily grind of all the other things that need to get done. The two hours on the field keep me from thinking about anything else . . . "therapy" . . . in my books. It was a great summer, but seemed to go faster than ever.

Lots of Technology Education initiatives have been going on during the summer as highlighted in this issue of the Interface. It is yet another great issue in part thanks to our Editor, Doug MacKenzie and Executive Director, Joe Ciontea. A portion of things to look for include along with many others:

- Hartford Union Summer Teacher Institute where teachers developed metal manufacturing skills while building a hand cart.
- UW-Stout's R3 Innovative Digital Technologies Retreat provided in association with the Wisconsin Economic Development Council and the Discovery Center Fab Lab.
- National Coalition of Certification Centers (NC3) and Dremel Idea Builder 3D Printer certification held at Gateway Technical College.
- UW-Stout Summit, a Cross-Sector Innovation Conference that brought together community members, alumni, industry reps, students, and faculty members to promote collaboration.
- A new Technology Education licensure program through the Alternative Careers in Teaching (ACT) program based out of UW-Oshkosh and UW-Fox Valley.
- The Fox Valley Technical College (FVTC) Power Tool Dragster Manufacturing Camp.



Thank you to everyone that contributed to the WTEA by submitting articles and taking out advertisements in this edition of the Interface.

As the school year is upon us, I am excited to see all the new education initiatives, programs, partnerships, and projects develop. With these, I am asking that you keep the WTEA informed of your progress with these initiatives. Email me or your district director with anything you have going on big or small so we can promote them across the state and country. Please utilize the tech ed listserve. If you are not a member, email Brent Kindred at Brent.Kindred@dpi.wi.gov. All that is needed is your email and he can get you set up right away. It is imperative that we continue to promote all the great things you are doing to help develop young people.

Looking to the future, the WTEA board of directors will be having a virtual meeting on Saturday, October 22nd. If you have any ideas, recommendations, or concerns, please email me or your district director so we can put them on the agenda. Please put March 2nd and 3rd on your calendar for the annual WTEA Conference at Chula Vista in Wisconsin Dells. It will be here before we know it. Start planning to present, bring a project to the Project Showcase, nominate someone for an award, etc. We need your involvement!

In closing, good luck to all of you with the start of a new school year. I hope for success and happiness for everyone including future teachers, new teachers, teachers changing schools, veteran teachers, retirees, etc.



Remember . . . when life gets challenging . . . **KEEP PEDALING** and never forget how important you are. You are "lifechangers!"

New WTEA Award

The WTEA is offering a new award to its members. Sponsored by Haldeman - Homme, the award is called "Mentor in Technology Education Award" and is offered to any teacher who inspired someone to become a Technology Education Teacher. The nominator must be either a student enrolled in a full time Technology Education certification program or a current Technology Education teacher. The essence of the award is to recognize an educator that had a profound impact on a student to pursue a career as a technology educator.

Think back on your personal experience in school. Did you have a shop, tech, auto, construction, metals, communications, or engineering teacher inspire you to want to become a technology educator? Haven't you always wanted to nominate that teacher to receive recognition from his or her peers? Now is your chance - nominate your influential tech ed teacher for helping shape your life.

For more information contact Matt Schultz at mjschult@kUSD.edu.

Spring 2016 WTEA Board Meeting Highlights

By Matt Schultz, WTEA Secretary/Treasurer

The following summary highlights the February, 2016 WTEA Board of Directors Meeting held February 24, 2016 at Chula Vista Resort in Wisconsin Dells.

- New Appointments: David Stroud; District at Large.
- Doug MacKenzie, Interface Editor is looking for more WTEA members to submit articles. A ten dollar discount on dues renewal will be awarded for members who get an article published in the Interface.
- WTEA Conference is looking to partner up with supporting companies/organizations to sponsor different events at the Conference. There are plenty of opportunities for companies to get involved on all three days of the conference. Stay tuned to hear more about different opportunities. Contact Joe Cointea, if interested in learning more. joe.cointea@wtea-wis.org.
- WTEA Conference Vendors Exhibit sold out spaces! WTEA is looking to be more creative with spacing to allow more vendors to attend the Conference.

- Project Show Case was moved to a two day event at the Conference to allow for more projects to be showcased and more time for projects to be seen.
- Moving "25 year" Award to beginning of Awards Dinner to make the dinner move more smoothly and shorten the overall dinner.
- Transcript high school credits with Technical College. Contact your local technical college to get this opportunity for your students started.
- The WTEA is encouraging members to host a "High-Tech" Weekend in your area. Topics can include a wide variety of subjects - CNC, Lasers, 3-D printers, Carpentry, Auto, Machining, etc. For more information, contact Jesse Domer: domerj@watertown.k12.wi.us.

For additional information about this meeting contact any member of the Board of Directors. Complete minutes are available from Matt Schultz at mjschult@kUSD.edu.

Spring 2016 WTEA Annual Membership Meeting Highlights

By Matt Schultz, WTEA Secretary/Treasurer

The following summary highlights the 2016 Annual WTEA General Membership Meeting held February 25, 2016 at Chula Vista Resort in Wisconsin Dells.

- New Appointments: Tom Barnhart Conference Coordinator.
- Retirement slide show played for Jeff Dowd. Thank you Jeff for all of your work and effort as Conference Coordinator.

- Past President's Thank you message - Jesse Domer.
- Installation of new President Steve Meyer.
- Re-installation of Vice-President Mike Cattelino.
- Financial report by Joe Cointea.
- Ships Drawing - vendor donations.

For additional information about this meeting contact any member of the Board of Directors. Complete minutes are available from Matt Schultz at mjschult@kUSD.edu.

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DISTRICT NEWS

District A

Sylvia Tiala



Welcome back to the 2016-2017 school year. There was a lot going on during this past summer. The Career and Technical Education (CTE) faculty and staff were pleased to host a summit this year with the help of our Chancellor, Bob Meyer. It was exciting for all of us to hear how we might envision UW-Stout as a world class leader in CTE. Details regarding the summit are included in this issue of the Interface. I am looking forward to connecting with you as your area rep during this upcoming academic year. Don't hesitate to contact me (tialas@uwstout.edu) with ideas for meetings and professional development.

I would also like to give a big welcome to Barbara Bauer, the new director of the BS program in Technology Education. Barb taught Technology Education in the Eau

Claire school district from 2003 – 2006. She has been the lab manager at UW-Stout for the past 10 years working with our Technology and Science Education students and teaches online classes for pre-student teachers. Barb also holds a Master of Arts in Education-Teacher Leadership from Silver Lake College in Manitowoc, Wisconsin. Be sure to give Barb a big welcome as the new program director for UW-Stout's BS in Technology Education program. Her contact information is:

Barbara Bauer
Lab Manager/Instructor
Communications
Technology Building
Rm 230
715-232-3482
bauerb@uwstout.edu



District D

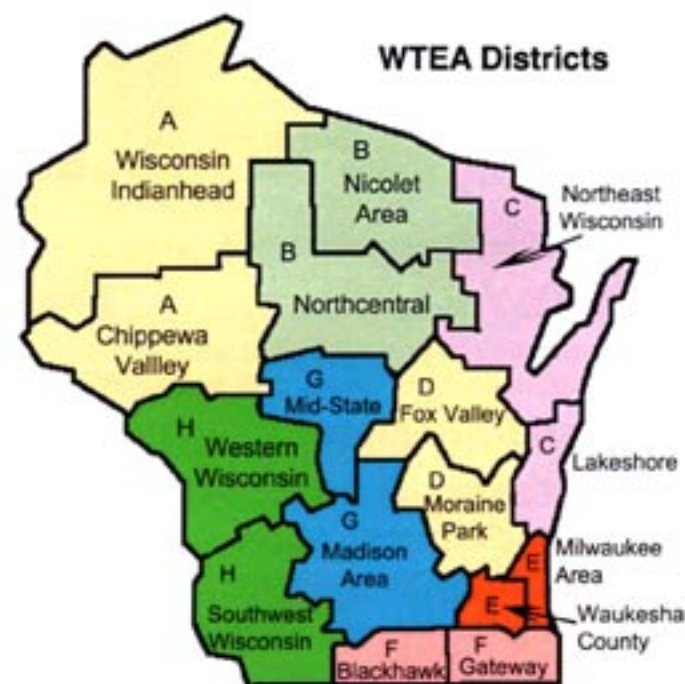
Jon Larson



I hope you have had a great summer. This was my family's second summer in Wisconsin since moving home from Wyoming. The most exciting part for us was welcoming our fourth member - our son Brock was born on May 24th. This

summer was alot like one big vacation. We were up north a lot, rode the rides at Bay Beach Amusement Park, did some fishing, went to drive-in movies and took a cross country road trip. It was great recharging the batteries and I look forward to the school year.

Please contact me if you have questions regarding the WTEA or District D. Mark your calendars now for the Spring Conference on March 2 & 3. Have a great start to the new school year.



Check out the WTEA Home Page

www.wtea-wis.org

District F

Eric Sutkay



As your District F Director I would like to introduce myself to the new Gateway/Blackhawk district teachers and welcome everyone back from a much needed summer break! The summer time is a great time to reflect on the past year and look forward to the next year.

Maybe you had an opportunity to get into the shop this summer and organize the new equipment that has come in for the coming year, or polish up some curriculum and projects the students will be working on in the coming year. Hopefully summer gave you an opportunity to spend much needed time with family and friends, maybe some time in the outdoors, fishing, camping or vacationing. The 2016-17 school year is now in full swing and exciting things are happening around the state. WEEVA will be hosting an Electrathon one day event in October, and a workshop in the fall. Also, Lakeview Technology Academy in Kenosha will be partnering

with Tormach to host a CNC High-Tech weekend event in late fall. Watch the listserve for more details on all events! I hope that everyone has an exciting start to the year and I look forward to meeting and talking with you at events throughout the upcoming school year. Feel free to contact me at any time.



Beaux Mettler Innovation Center Capital Campaign Kickoff Event at Ashwaubenon High School

By Tom Barnhart, Ashwaubenon High School

Last May an event was hosted by the Technology Education Department at Ashwaubenon High School to raise funds to facilitate a 21st Century Tech Ed classroom. The mission - "To be the premier Technology & Engineering Education program in developing innovative and skilled leaders of tomorrow" - is a collaboration between Ashwaubenon High School, Northeast Wisconsin Technical College, the NEW Manufacturing Alliance and the Beaux Mettler Foundation. During the event community members had the opportunity to visit with student's staff and supporters to see how innovation is incorporated into Tech Ed projects.



Guest Speakers Brent Kindred of the DPI, Steve Meyer of the WTEA, and Barb Halron of the Beaux Mettler Foundation gave testament to the need for community support in order to close the skills gap our Nation is facing. The Beau Mettler Innovation Center facility will house technologies found in job shops and Fab Labs with an emphasis on Engineering and Manufacturing. It will be a state of the art facility that showcases opportunity for students to pursue multiple career pathways through Tech Ed classes.

For more information go to: <http://www.ashwaubenon.k12.wi.us/innovationcenter/index.cfm>.

ANNOUNCEMENTS

WTEA Awards Nominations

Each spring the WTEA recognizes Technology Educators, Industry, and Technology Education Programs that have demonstrated outstanding achievement at our annual awards banquet held at the WTEA Spring Conference.

The WTEA needs your help, as educators, to identify these worthy teachers, programs, and other professionals that deserve recognition. The WTEA is looking for educators that are going above and beyond in their classroom. The WTEA has a variety of award categories that cover teachers, programs, and examples of classroom excellence. Members are encouraged to visit the WTEA's Awards page on the website. There you will find the criteria for each award. As a profession, we need to continue to recognize greatness in our profession. The WTEA Awards Banquet gives us that opportunity.

The awards committee will contact the nominee and request information regarding the nominee's curriculum, achievements, and contributions to Technology Education along with letters of endorsement. To nominate a teacher, program, or industry, contact Matthew Schultz, Secretary/Treasurer or Joe Cointea, Executive Director

and tell us who you wish to nominate, where to contact them, and why you feel they deserve recognition from our association. All nominations must be sent by U.S. mail or by email. The awards banquet will be held as part of the WTEA annual conference.

Notes:

- Nominations must be received by November 15th to be considered for recognition the following spring.
- To be considered for recognition, the Technology Educator must be a current member of the WTEA and have a history of WTEA membership during the previous school year.
- For a detailed description of the awards, please visit our website or contact any board member.

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CALL FOR PRESENTERS

2017 Conference Theme:
“Moving sTEm Forward”

48th Annual Spring Conference
March 2 - 3, 2017
Chula Vista Resort, Wisconsin Dells

*Presenter form must be submitted
by November 30, 2016
by mail, fax, website submission or e-mail.*

Directly submit via online form at:
<http://www.wtea-wis.org/bapresenter.html>
E-mail: johnston@mwt.net • Phone: 608-689-3033

ANNOUNCEMENTS

The WTEA Needs Your Help



We are currently accepting nominations for the office of **WTEA President-Elect** and **WTEA Secretary/Treasurer**. This is your opportunity to serve your profession in a leadership position. The Board of Directors works together as a team to plan and coordinate professional development activities, give association awards and promote the advancement of our profession. The Board meets up to four times per year; meetings are held both face to face and electronically as appropriate. If you have questions please contact any member of the WTEA Board of Directors.

Secretary/Treasurer

(2 year term): Spring 2017 - Spring 2019

President-Elect

(4 years): 2017-2018 as President-Elect, 2018-2020 as President, 2020-2021 as Past-President

Nominations should be sent to WTEA Past-President Jesse Domer, domerj@watertown.k12.wi.us.

Ballots will be mailed to members approximately February 1st.

If candidates run unopposed, a unanimous ballot is cast by the Board and no paper ballots are mailed.

Nominations will be accepted until December 9.

Check your mailing label now!

Check the first line of the mailing label on the back cover of this magazine to see when your membership expires.

*You may not receive the next important issue of the *Interface* unless your dues are paid beyond 2016..*

Notice:

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doug@wtea-wis.org

- Dates to Remember -

October	Manufacturing Month	
October 5 - 7	Career Pathways Network National Conference	Indianapolis, IN
November 6 - 7	SkillsUSA Fall Leadership Conference	Wisconsin Dells, WI
November 15	WTEA Awards Nominations Due	
Nov. 30 - Dec. 3	ACTE Career Tech National Conference	Las Vegas, NV
December 22	WTEA Conference Early-Bird Registration Deadline	
March 2 - 3, 2017	48th Annual WTEA Conference	Wisconsin Dells, WI
March 16 - 18, 2017	ITEEA Annual Conference	Dallas, TX
April 25 - 26, 2017	44th SkillsUSA State Conference	Madison, WI
June 19 - 23, 2017	52nd Annual SkillsUSA Championships	Louisville, KY

LICENSURE

Technology Education (1220) Licensure Program Helps Current Teachers Get Licensed!

Currently licensed teachers on an emergency license or the experienced-based license can now become licensed in Technology Education (1220) through the Alternative Careers in Teaching program (act!). This new Tech Ed licensure program starts by evaluating an applicant's transcripts and prior learning experiences in subjects typically taught in Tech Ed. Any content needed can be taken at a local technical college, two or four-year campus. You would also need to complete three courses in Principles of Technology, Methods of Teaching Technology and College and Career Program Planning taught by current and former licensed Tech Ed teachers. Finally, you would need to pass the PRAXIS II exam in Technology Education and be observed teaching 60 hours in Technology Education on-the-job at your school!!

Six scholarships of \$500 to help offset the cost of tuition have been generously provided by the NEW Manufacturing Alliance – so why wait any longer to become a licensed Technology Education Teacher!!

For additional information or to apply contact:
Dr. Michael Beeth, Director of act!
920.424.3326
beeth@uwosh.edu
<https://www.uwfox.uwc.edu/academics/act2teach/>



The table below summarizes all program requirements and costs

Requirement	Credits		Cost*
Admission fee		For record keeping, generating a customized curriculum, advising and processing licensure request	\$300
Technology content coursework	<35	Covers Architecture, Biotechnology, Construction, Electronics, Engineering, Environmental Technology, Information Technology, Manufacturing, Power and Energy, and Transportation	Variable depending on transcript review and prior learning
Technology Education coursework	3 credits each	1. Principles of Technology 2. Methods of Teaching Technology 3. Career and College Program Plan 4. Student Teaching – 60 hours, can be done on-the-job!!	\$3,500
PRAXIS II exam		Technology Education exam (5051)	\$125

SUBSCRIPTION

Interface School Subscription



The WTEA school (building or district) subscription provides you and your local colleagues with an opportunity to keep informed about technology education in Wisconsin. The more local technology educators you sign up, the more you save. An individual subscription is \$30, but you can sign up 6 people for only \$125 - that's a savings of \$55 (see fee schedule listed below). Each additional person beyond the initial 6 is only \$10.

How it works:

Complete the form below and list every technology educator in your building. If your department has teachers in more than one building, duplicate the form and provide us with the correct school address for each educator. That way separate buildings in the same school district can be combined to increase your savings. All names listed must be employees of the same school district. Tally the fees on the form and send it along with a check or school purchase order to the address on the bottom of the form. **To be eligible for all benefits of this special pricing, school subscriptions should be sent as soon as possible.**

What you get:

Each person receives: a personal copy of the *Interface*, all association mailings and notices, invitations to attend regional technology education meetings and workshops, unlimited access to the WTEA website, discounted admission to the association's annual technology education conference, and eligibility to receive all association awards (educator of the year, program of the year, award of excellence, 25 year award). All mailings will be sent to the school address on the form. This school year subscription will expire the following fall. This form will be published in the *Interface* each fall; it is also available on the WTEA website.

Please type or print all information. Duplicate this form as necessary.

School District _____ School Name _____

School Address _____

School City _____ State _____ Zip _____

Phone (_____) _____ School Fax _____

Local Technical College District (used for regional workshops and meeting invitations) _____

Local Tech. Ed. Contact (Dept. Chair, LVEC, etc.) _____

Email address of local Tech. Ed. contact _____

Name and email	# of years teaching	Fee
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2 _____	_____	\$25
3 _____	_____	\$20
4 _____	_____	\$20
5 _____	_____	\$15
6 _____	_____	\$15

Each additional person is \$10 each; names and school address may be attached on a separate sheet.

Please note: The Interface is published 3 times per year: fall, winter and spring.

Send this form with check or Purchase Order to: **WTEA PO Box 1312 Fond du Lac, WI 54936-1312**
Fax (920) 922-0779

SKILLSUSA

52nd Annual SkillsUSA National Conference

By Amy Kennedy, Event Coordinator, SkillsUSA-Wisconsin

During the last full week of June, Wisconsin sent representatives to Louisville, Kentucky to the SkillsUSA National Leadership and Skills Conference. During their stay students participated as competitors or as voting delegates where they elected national officers for the year and conducted business of the organization. In addition, students also met with business and industry representatives, heard from government officials, visited vendor booths, participated in community service, and had fun.

Many students participated as competitors in the SkillsUSA Championships held on Wednesday, June 22nd and Thursday, June 23rd. More than 6,200 students worked against the clock and each other in 100 different trades, technical and leadership fields. The participants proved their expertise in job skills for occupations such as motorcycle repair, marine technology, sheet metal, welding, precision machining, First Aid, and urban search and rescue. There were also competitions in leadership skills, such as extemporaneous speaking and conducting meetings by parliamentary procedures. It was a great week for Wisconsin.

And for Wisconsin, below are a few highlights from the week:

- We had a great delegation of about 117 attendees.
- We brought home gold medals in Urban Search and

Rescue - Pilgrim Park Middle School, Elm Grove.

- We brought home two bronze medals - Sheet Metal (Hartford High School) and Power Equipment Technology (West Bend High School).
- In total we had 13 teams/competitors rank in the top 13 in the nation in their respective competitions.

National Highlights:

- The 2016 NLSC was our largest national conference in history.
- The SkillsUSA Championships had over 6000 entrants in 100 contests.
- More than 2100 volunteers supported the SkillsUSA Championships including judges, technical committee and education team members.
- SkillsUSA awarded 1080 gold, silver and bronze medallions, plus 480 other recognition awards during the conference.
- There were some dynamic general sessions and excellent speakers, including Kayleen McCabe DYI Network host of "Rescue Renovations," Greg Rintala of Snap-on Inc., at the Opening Ceremony as well as Dave Zellers of Toyota North America.
- A total of 500 students participated in community service at ten sites around Louisville, bringing the total hours served this year to 101,800.

SkillsUSA Fall Leadership Conference

November 6 - 7, 2016

• Chula Vista, Wisconsin Dells

The SkillsUSA Fall Leadership Conference for both middle and high school members is a must attend event for all of our chapters. This year we are excited about having the conference at the Chula Vista in Wisconsin Dells. This is a great location and will lend itself well to the sessions we will be having. Student and advisors will learn the SkillsUSA program of work, which is essential to running an effective chapter. Everyone will be engaged from start to finish. We look forward to seeing everyone in early November.

For more details, please visit: http://www.skillsusa-wi.org/wordpress/?page_id=321.



March 2 - 3, 2017

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The 48th WTEA Annual Conference

"Moving sTEm Forward"

• Chula Vista Resort

• Wisconsin Dells

2016 State Conference Highlights

April 26 - 27



ARTICLE

Wisconsin Youth Apprenticeship Program Develops New Generation of Skilled Workers

By Darla J. Burton, Youth Apprenticeship Program Coordinator

Governor Scott Walker recently announced Wisconsin Youth Apprenticeship (YA) grant awards totaling \$3.2 million for the 2016-17 school year. The awards will go to 32 regional consortium partners to provide more than 3,600 high-school students with hands-on training in high-demand fields.

Wisconsin's YA program is a nationally recognized work-based learning model operated by the Department of Workforce Development (DWD) and regional partners. The program helps high school students gain academic and technical college-level instruction with mentored on-the-job training in an occupational area of interest over one or two years. Students who complete the program graduate on track, earn a YA completion certificate, and may receive technical college credit and industry credentials.

The Harvard Graduate School of Education recognized Wisconsin's YA Program as an "Exemplar of Em-

ployer Engagement" in the 2011 Pathways to Prosperity report. The report noted the high number of YA graduates who receive a post-secondary degree and are employed after high school. The report also noted that 98% of employers would recommend the program to fellow employers.

Wisconsin's YA Program offers 10 of 16 Career Clusters developed by the National Career Clusters® Framework, including: Architecture and Construction; Manufacturing and Science, Technology, Engineering & Mathematics (STEM).

For more information about the program including program offerings by region, and how to start a YA program at your school, visit <http://ya.wi.gov>.



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Wisconsin Energy Efficient Vehicle Association Events

By Mike Paquette, Peshtigo CTE Teacher

With the beginning of the school year fast approaching, as I pen this, I am excited about all the trials and tribulations that await. During the summer much of my time has been spent with family, friends, and planning WEEVA events. All of this planning often gets me supercharged for my year as a Wisconsin Energy Efficient Vehicle Association team adviser and board member. Due to this, I am, of course, a fan of the Supermileage and Electrathon events WEEVA promotes.



Every year for the past 10, in collaboration with students, we have designed a single person electric or gasoline car. The construction of these vehicles has been quite exciting and educational. Not only have these projects provided fantastic learning opportunities for my students over the years, but they have acted as a promotional tool for our school and department.

WEEVA is planning several events to help support teachers who would like to participate in Supermileage and Electrathon events. We will have up to four challenge events in the spring for teams to compete for the season championship, along with a winter workshop for teachers to share ideas.

We would like to promote a new event scheduled for October 1st this year - The Organic Valley Fall Classic. The fall event is spearheaded by Mike Schmitz and Harvey Mehn in collaboration with the Organic Valley bottling plant in Cashton, Wisconsin. This was planned as an opportunity for teams to test cars in the fall and expose teams to the world of Supermileage and Electrathon competitions. The Organic Valley Fall Classic is planned as an introductory event for teams. New teams will have an opportunity to experience an event and ask other teams for tips. Seasoned teams may have a new crew to train, or it could be an opportunity to look at a car and ask questions in preparation to build a new frame.



For more information about WEEVA and important dates, please check out our web site.

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48th Annual Technology Education Conference & Trade Show

Tentative Conference Overview

Wednesday, March 1, 2017

7:30 p.m. Pre-registration

7:30 - 9:30 p.m. Project Showcase setup

Thursday, March 2, 2017

7:30 a.m. – 3:30 p.m. Conference Registration

8:00 a.m. – 3:30 p.m. Trade Show

& Project Showcase

8:55 a.m. – 9:05 a.m. General Welcome

9:05 a.m. – 10:00 a.m. 1st General Session

10:15 a.m. – 3:45 p.m. Concurrent Sessions

3:45 p.m. – 5:00 p.m. WTEA Membership Meeting

7:00 p.m. – 9:00 p.m. Awards Banquet

9:00 p.m. (following banquet) President's Reception

Friday, March 3, 2017

7:30 a.m. Conference Registration

6:45 a.m. – 7:45 a.m. Alumni Breakfast

7:45 a.m. – 8:15 a.m. General Welcome

8:45 a.m. – 12:15 p.m. Concurrent Sessions,

Vendor Demonstrations & Project Showcase

TBD – Hands-on workshops at Portage HS

12:30 p.m. – 1:45 p.m. General Session/Luncheon

2:00 p.m. – 3:00 p.m. Concurrent Sessions

& WTEA Board Meeting



Thursday Keynote Speaker

Peter J. Uvass,
President
Fox Valley Tool & Die, Inc.



Friday Keynote Speaker

Dr. Morna K. Foy,
President
Wisconsin Technical College
System

Session Topics Include: Modern Forge Techniques, Driverless Vehicles, Aerospace Technologies, WISELearn System, Offsite Building Construction, K-12 Energy Education Program (KEEP), Robotics, Apprenticeships, Machine Safety, Retirement Strategies, Innovation and Design, Automotive Technologies, Welding and Machining, Building High Mileage Vehicles, Project Showcase, SkillsUSA, 3D Printing Techniques, Middle School Roundtable, Manufacturing Project Ideas, New Teacher Boot Camp, and much more!



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2017 Conference Highlights

March 2 & 3

Keynote Speakers - Thursday & Friday

Educational Sessions - Thursday & Friday



Project Showcase - Thursday & Friday



Trade Show - Thursday

WTEA Annual Membership Meeting - Thursday

Awards Banquet - Thursday Evening



President's Reception & Silent Auction - Thursday Evening



Early-Riser Breakfast - Friday

Colleague Networking - All 3 Days



To complete an electronic version of the WTEA membership/registration form, go to www.tinyurl.com/WTEA-Conf

WTEA Membership Application & 2017 Conference Registration Form

Membership year runs from September 1st through August 31st

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School Dist. _____ School Name _____

School Address _____

School City _____ State _____ Zip _____ E-mail: _____

Check the appropriate boxes below and total amount due.

Membership Fees: ☐ 3 year membership - \$75.00 ☐ 1 year membership - \$30.00 \$ _____

Spring Conference EARLY BIRD Registration (Must be postmarked by December 22, 2016)

☐ \$125 members ☐ \$155 non-members \$ _____

Spring Conference Registration (After December 22, 2016):

☐ \$150 members ☐ \$180 non-members \$ _____

WTEA Awards Banquet (Thursday, March 2, 2017) ☐ \$28 \$ _____

☐ Bill my school district - purchase order is attached ☐ payment enclosed **Total \$** _____

Send completed form with payment or school purchase order to: **WTEA, P.O. Box 1312, Fond du Lac, WI 54936-1312**

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ARTICLE

Pleasant Prairie Mini Maker Faire

By Matt Schultz, Lakeview Technology Academy

Pleasant Prairie will be hosting its inaugural Mini Maker Faire on Saturday, November 26 at Pleasant Prairie RecPlex, located at 9900 Terwall Terrace, Pleasant Prairie, Wisconsin.

WHAT IS A MAKER FAIRE?

A Maker Faire is a community-based learning event that brings tech enthusiasts, crafters, educators, tinkers, hobbyists, engineers, science clubs, authors, artists, teachers, students and entrepreneurs together to "show their projects and talk about what they've learned." The event is meant to inspire "everyone to become a maker and connect people with projects in their local community." It's an exhibition with opportunities for hands-on and do-it-yourself interactions.

HOW CAN YOUR SCHOOL GET INVOLVED?

Schools by nature facilitate "Makers." Every skill you teach your student, every project they create, identifies them as "Makers." These projects, some old, some new, are AMAZING and need to be shared and shown off. A Maker Faire is an avenue to show off the coolest things

your students are doing. Your school can reserve a booth to show off your students as Makers.

OTHER OPPORTUNITIES

If your school isn't interested in having a booth, there are still opportunities to see other Makers' work. If your school is interested in selling projects or work at the Maker Faire, you can pay a small additional fee to sell your work. If you would like to bus in a larger group, this can be arranged too! There is no cost to attend the event! If you are interested in learning more about the Pleasant Prairie Maker Faire, visit www.makerfaire-pleasantprairie.com or contact Christine Christenson at cchristenson@plprairiewi.com.

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Center for Teaching Enterprise (CTE): Designing for the Future

By Sylvia Tiala, UW-Stout

Over 50 stakeholders gathered at the University of Wisconsin – Stout on June 13th and 14th of this year to discuss the role of UW-Stout in Career and Technical Education. Representatives from K-12 education, post-secondary education, business and industry, and the state Department of Education were present. The tone for the meeting was set by UW-Stout's Chancellor, Bob Meyer, who encouraged the group of committed individuals to think about working together to help prepare students to be successful in an innovation economy and for careers that haven't been invented yet. Dr. Jim Bensen, President Emeritus from Bemidji State University, challenged participants to rethink the role of CTE while encouraging participants to provide input while keeping an eye toward the future. Opening presentations reflected the current state of Career and Technical Education (CTE) from a variety of perspectives. Dr. Debbie Stanislawski highlighted the CTE program array, enrollment trends, and accreditation requirements from UW-Stout's perspective. Dr. Matt Janisin presented his research on CTE teacher supply and demand. A school administrator's viewpoint of CTE was provided by Kevin Stienhilber from the Appleton Area School District. Melisa Hansen, CTE coordinator in the Hudson School District, provided a K-12 perspective. Dr. Bryan Albrecht, President of Gateway Technical College, provided insights from the perspective of Technical Colleges with Jim Morgan providing insights from a workforce development perspective.



Small group sessions explored areas for improvement and strategies for success following the introductory remarks. Using the comments from the listening sessions, the CTE faculty (current and emeriti) and staff, consisting of Barb Bauer, Urs Haltinner, Diane Klemme, Carol Mooney, Deanna Schultz, Matt Simoneau, Debbie Stanislawski, David Stricker, Sylvia Tiala, and Ken Welty, met following the Summit to analyze the data gathered

from stakeholders and to begin planning for the future. The initial plan calls for the development of a world class Center for Teaching enterprise that was recommended by stakeholders and embraced by the UW-Stout CTE team. The Center for Teaching Enterprise will focus its mission on programs, promotion, and partnerships through leadership and collaboration. The three main goals will include: expanding the pipeline of CTE teachers and leaders; increasing the visibility of UW-Stout's CTE programs and faculty; and integrating academic and career planning (ACP) initiative into curriculum.



CTE faculty have begun moving forward with their short and long term goals by planning an articulation-partnership day with technical college program leaders, working with Troops to Teachers to create a viable pipeline for CTE teachers, and exploring professional development programs to offer through the Center for Teaching Enterprise.

Tentative plans for the 2017 CTE Summit are being made for June of 2017. The CTE faculty and staff are looking forward to demonstrating our commitment to the delivery of comprehensive, high quality and responsive CTE teacher preparation programs.

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The Power of Summer Camps

By Mike Cattelino, Fox Valley Technical College

Summer - a time to relax and recharge. A time to spend getting refreshed and renewed, trained and rested. RIGHT!!! We tell our students that learning is life-long. Well, teaching is year-around AND life-long. It is a reality that is best embraced rather than resisted. My role at FVTC is year-around, so this is not unfamiliar territory for me.

Several years ago I was asked to look at doing a summer camp that would expose middle school kids to manufacturing. Your current WTEA President, Steve Meyer, and I created what is known as the FVTC Power of Manufacturing Summer Camp. You may have read about it in the Interface before and likely have seen the results of it at the annual WTEA conference. I am writing this article while still "recovering" from this year's camp.

This year had its unique challenges, but in the end, twenty-four 12-14 year-old kids got an experience with manufacturing that I wish I had had when I was their age! We cut, belt-sanded, drilled holes on drill presses, CNC drilled, welded, fabricated, cut vinyl, assembled, and much more to create what we call Power Tool Dragsters. The kids learned very entry-level skills and by no means mastered anything. Two topics were emphasized throughout the camp, SAFETY and RESPECT. Those fundamental core abilities in manufacturing were continually reinforced. Why RESPECT you might be thinking? Respecting their surroundings and each other was a top priority. Respect the process that we had prepared for them, because if it wasn't followed, the dragsters would not get manufactured in time to race them on the last day

of the camp. Respect for the machine shop that we visited in the middle of the week and show respect for the sponsors that attended the drag races on the final day of camp. In the end, I felt as though the message regarding safety and respect was received and executed. I was quite proud of everyone that attended the camp in that regard.



The people I was most proud of that week were those that stepped up to assist with various aspects of the camp. Day one, Joe Ciontea (WTEA Executive Director), Lee Backus (FVTC Machine Tool Instructor) and Evan Rinke (Volunteer, 2015 camp participant) did great work getting us through the day. Chris Opsteen (Welding Intern), Steve Moede (Welding Instructional Aide), and Evan Rinke worked through day two with me to get the frames welded and bodies fabricated. Day three was spent touring Eagle Supply and Plastics, a local machine shop that only



machines plastic. I'm proud to state that our son, a 2015 FVTC Machine Tool Operations program graduate, works there running a variety of machines. Day four had Tom Barnhart (WTEA board) and Bill Martin (FVTC FabLab volunteer) guiding the campers through vinyl cutting and



decals application while I worked through assembly with them. Kerri Nevala (FVTC Administrative Assistant for Apprenticeship) was a tremendous help before camp and during the races on day five. My family (Lynn, Amy, Na-

than, and Nicole) all pitched in to help with the race-day setup and tear down. Day five, Joe and Tom returned to help Kerri and me run the drag races. Again, I'm proud of everyone for their efforts to make the days go well.

The feedback (POWERFUL!!!) from the parents, sponsors, and everyone that helped with the camp was intensely positive. There was so much enthusiasm for all that they had experienced throughout the week. There were several camp participants that have aspirations outside of manufacturing, and they and their parents had positive comments as well. As an educator, that feedback is truly "the icing on the education cake" for me. When I consider how the week developed and how far the participants progressed, it was powerful!



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Fab Lab Lessons

Teachers Learn Design, Digital Technology Skills at Workshop

Teachers from five school districts in northern Wisconsin spent a week in June at University of Wisconsin-Stout's Fab Lab working on a seemingly small problem: How to make it easier to open a pop top on an aluminum can.

Being teachers, however, they knew the problem placed before them was about much more than pop top technology.



As the 10 teachers created new tools to open a pop top, they became more familiar with engineering design and fab lab equipment so they can teach lessons involving digital design and fabrication technologies to their students.

"Coming in here, I knew very little about fab lab equipment or how to build a curriculum around that," said Mackenzie Bennin, a K-12 art teacher in the Granton school district. "But after this long workshop we've had and really diving into it, I feel like I'm more prepared as an educator, and that's something I can bring back to my school and share with everybody there."

The workshop, called the R3 Innovative Digital Technologies Retreat, was provided in partnership with the Wisconsin Economic Development Council and hosted by UW-Stout. WEDC, through the Fabrication Laboratory Grant Program, had awarded funding to some of the school districts represented at the retreat to purchase fab lab equipment.

UW-Stout's Discovery Center Fab Lab was founded in 2013 with the assistance of a multiyear \$520,000 Growth Agenda award from the UW System. It features digital fabrication machines, such as 3D printers, a laser cutter and minimill, that are programmed through computer software.



The retreat was led by UW-Stout School of Education professors Kenneth Welty and David Stricker and Menomonie High School technology education teacher Laurence Charlier, a UW-Stout alumnus.

They challenged the teachers to design a tool that would make it easier to open hundreds of pop tops, something flight attendants do regularly. The design process culminated in models and prototypes created on laser engravers and 3D printers.

"We're getting them to think like designers and realize their vision for innovation," Welty said. "They had to do a lot of critical thinking."

By week's end, the teachers not only had designed a new tool — one step in the problem-solving process — that required less hand force by the user but had made one in the very same lab space where they designed it. One of the teachers, Dan Kovach of the Ashland school district, said the workshop helped him become more adept at using the innovative technology, the knowledge of which he can pass along to his students.



"R3 shows you how to reach students who might otherwise be disengaged. Hopefully, I'll get them excited about design. I want to help them forget that they're in a classroom or a school and be thinking more about careers and college opportunities," Kovach said.

Teachers attending the workshop were:

- Mark Beise, Rice Lake, Northern Lakes Regional Academy
- Jon Hiebl, Ashland
- Kay McLain, Florence
- Jeremy "Pete" Peterson, Rice Lake, Northern Lakes Regional Academy
- Adam Schmidt, Rhinelander
- Kyle Schmidt, Ashland
- Matt Tebo, Rice Lake
- Michael Wojtusik, Rhinelander

Also participating was Mike Bark of the Wisconsin Innovation Network of Washburn.

"This model for learning in the fab lab can be applied easily and next year we'll be using it at Northern Lakes Regional Academy across all disciplines," Peterson said.

In 2015, the Discovery Center at UW-Stout was commissioned by the WEDC to assess fab labs in state high schools and colleges. The assessment led to the development of the R3 retreat to help teachers optimize use of their equipment, said Randy Hulke, Discovery Center executive director.

"This is the up-and-coming, new thing," said Bennin, a UW-Stout alumna. "If you can get out of high school knowing what you're doing with a fab lab, you can use it in a lot of places in the real world."

UW-Stout will be offering the fab lab training again soon. To express interest or get more information, contact Terese Wentworth at wentworth@uwstout.edu.



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2016 Summer Teachers Institute is History

By Gary Beier, Vice President – WATDA Foundation

The Foundation's 16th annual Summer Teachers Training Institute was held from July 11 – 14 at Gateway Technical College's Horizon Transportation Center. This site is one of its kind in the Midwest, attracting educators from all over the world.

This year's institute included specialized learning tracks on fuel ignition, transmissions, electronic training board techniques, advanced brake systems, engine performance, lab scope diagnostics and classroom software. Also featured were NATEF certification workshops and a special hybrid safety class including teachers and firefighters from the Waterford and Tichigan volunteer fire departments.

Hands-on was a key component again this year thanks to the efforts of ZF Transmissions, Honda of America, Snap-on, Subaru, Bosch, CDX, Electude and ProCut Technologies.

Major program sponsors included: Gateway Technical College, Forest County Potawatomi Foundation, Snap-on Industrial, Wisconsin Department of Public Instruction, Milwaukee Area Workforce Funding Alliance, CDX, Goodheart-Willcox, and Zamora Group International.



National Geographic Cengage and Chrysler provided up-to-date service training manuals for all of the 43 teachers. All told, the 2016 Summer Teachers Institute provided 52 instructional students with a potential of 2,288 certified professional credit instruction hours.

Monday's opening night ceremony at Snap-on Corporation's Innovation center took on special significance with the presentation of Team Wisconsin's first Extra Mile Awards. This unique recognition was created by Richard Burany of the Foundation's Development Advisory Committee in honor of his late father Frank, who was a legend in midget racing and also held the distinction as the oldest living driver in the Indianapolis 500.



The Extra Mile awards (actual trophies from Frank's career) were awarded to Gottfried Georgi (retired teacher from Racine Park High) and our own Dan Wooster for their outstanding efforts in technical education and service above and beyond the call of duties.

Andy Ginger, President of Snap-on Worldwide was presented with the Platinum Business Partners award from the Foundation for his organization's outstanding support of our scholarship program.

Our special thanks to the Gateway Technical College team: Vice-President Deborah Davidson, Dean Manoj Babu, Horizon Center administrator Jodie Carstens-Berberich and instructors Matt Janisin and Bill Fell.

Special thanks to all our 2016 Summer Institute program sponsors:

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Wisconsin Department of Public Instruction

Wisconsin Technology Education Association

Zamora Group International • ZF

Get Your Students Certified

By Matt Schultz, Lakeview Technology Academy

NC3 (National Collation of Certifications) has partnered with Dremel 3D Printers to offer the first of many machine specific "Fab Lab" Certifications. This summer NC3 hosted their first "Train the Trainer (TTT)" in Racine, Wisconsin at Gateway Technical College's IMET (Integrated Manufacturing Engineering and Technology) Center.

The National Coalition of Certification Centers was established to address the need for strong industry partnerships with educational institutions in order to develop, implement and sustain industry-recognized portable certifications that have strong validation and assessment standards. The NC3 network has aided high schools and technical colleges in developing the necessary course offerings for students to not only complete graduation, but also to acquire professional certification while they are in the program.

The latest certification added by NC3 is the Dremel 3D printing certification. The curriculum is rich in student labs with hands on experience for the introductory 3D printer. The curriculum is complete with machine operation tutorials, as well as instructions on how to utilize Print Studio and Autodesk print management software. Lastly the curriculum offers an introduction to Tinkercad for instructors who don't already have a CADD platform. NC3 partnered with Dremel and Grainger to offer a 5 bundle printer pack, with everything needed to set your lab up to administer the certification.

The wheels are currently in motion to get this NC3 certification on the list of approved WFD (Workforce Development) funds for students who complete the certification. If you are interested in learning more about the certification and how you can implement it for your students contact: Dan Ramirez at dan.ramirez@nc3.net. If you would like to advocate for the certification being added to the WFD approved industry certifications, please contact: Jamie Bernthal at JamieT.Bernthal@dwd.wisconsin.gov.



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A New Approach to Teaching Architecture Sustainable Architecture - A Flexible Approach That Works

By Nels Lawrence, Kaukauna High School

Architecture as a subject is often part of a construction class, or at Kaukauna High School it was a drawing board class for many years. Classes only run when there is sufficient demand to merit a section in the schedule, which is exactly why architecture was a dead item that lived in our course book for several years attracting little or no enthusiasm from potential students. The highly qualified teacher, who had guided students in creating designs, large scale drawings and blueprints saw the class slowly disappear. Students were given the opportunity to learn computer based design with the Chief Architect program, but the numbers were not there.

Today the class always runs and gets a strong positive with students and parents. What happened? The class is now called Sustainable Architecture and the content is organized around structures that first and foremost are energy efficient. The inspiration for the new approach was an annual scholarship opportunity to attend the Better Buildings-Better Business conference held in the Dells. These scholarships were provided through the KEEP program which provides energy education for K12 Wisconsin teachers from their base at UW-SP. <http://www.uwsp.edu/cnr-ap/keep/Pages/default.aspx>. The conference is designed to meet the needs of professionals in the building industry who are creating the most energy efficient structures possible. After meeting with training specialists for LEED Certified construction, I took the prep class for becoming a LEED Certified Associate.

What makes this class interesting enough to fill a section while teaching the concepts that meet academic standards and goals? The core of the class is LEED Certification. The students are introduced to the scoring system that takes into account every aspect of a structure from pre-planning to eventual recycling of the building when it has reached the end of its use. LEED calls this "Cradle to Cradle" to emphasize reuse of materials in the long term. Students design progressively complex solutions to a need of housing or structure and justify their choices of design, materials, site selection, environmentally friendly landscaping, water use and the many factors that qualify for the various LEED medals. Our students create a small cottage which is rather conventional but the assignment walks them through the tools in Chief Architect from foundation to completed computer model with roof plans,

site, and landscape and even cost estimating. This could be done with any program. More advanced students often use REVIT (AutoCAD product). We then dig into net zero homes, which use advanced wall construction and other techniques to become much more efficient. We introduce the use of blower door tests to measure how tight a building is. The students then design a small home or condo looking at maximizing use of space. The incredibly efficient apartment designs shown at IKEA are a great example for this unit showing a wonderfully livable space that is in a very small footprint. Students then do another unconventional challenge. Imagine a refugee camp or a hurricane Katrina event which requires a "deployable" community more or less long term instant housing. Finally, after working on plans for a conventional size home, the students wrap up the term with a design for an Environmental/Nature Center. They score their work using the LEED check list. <http://www.usgbc.org/resources/leed-v4-building-design-and-construction-checklist>.

We look at examples such as the Aldo Leopold Center in Baraboo, which is an excellent LEED Certified site. This would make a great field trip if it is close to your school. Major players in construction, following new trends in construction, now do LEED building and are often willing to do a visit. We can visit our own LEED Certified building for Kaukauna Utilities near our campus. The addition of a public space, like the nature center, requires students to become familiar with code issues such as ADA accessibility for individuals with a disability. We also use our Kaukauna Environmental center as an example which involves dealing with shore line site regulations and DNR issues.

Our curriculum for this class allows us to teach all of the traditional aspects of architecture and construction, including codes, while introducing the students to modern trends in energy efficient construction. They learn that it's not about adding solar power or putting up a wind turbine, but the envelope of the structure is the critical first step. Typically, one or two students a year actually attend schools of architecture but many become builders, engineers, and most will be home owners. This approach holds student interest and allows the instructor to feed into the curriculum the key concepts in a flexible manner that makes it easy to customize the content.

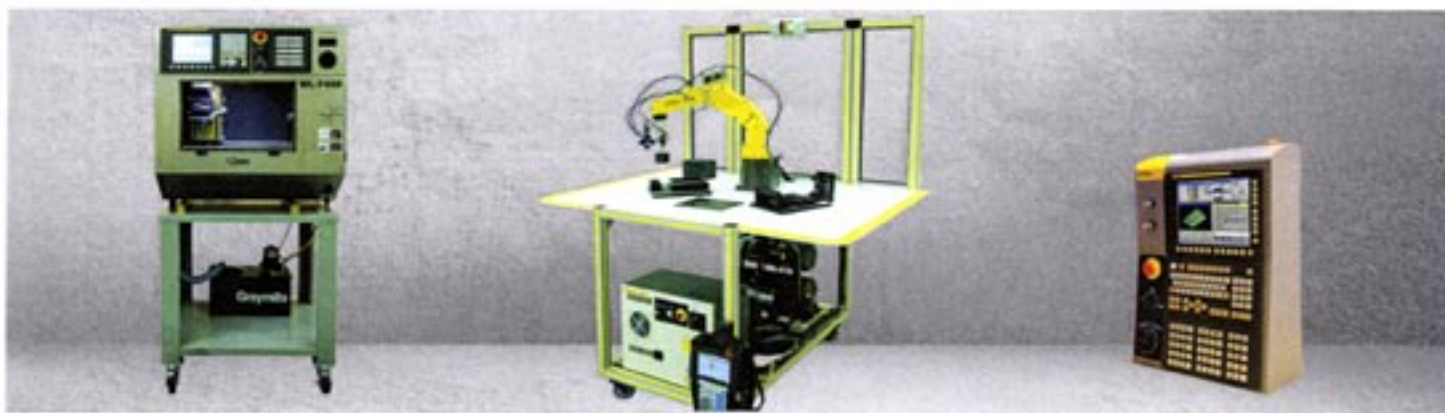
Where do you start? How could this work? First I would suggest looking at some of the classes offered by KEEP. Some of these are grad credit with a subsidized cost paid for by your local utility. A class that does a district energy audit at your school can be a great learning experience. Check the dozens of resources on the KEEP web site and consider attending the Energy Fair next June (another potential credit opportunity). If your situation does not allow a stand-alone class as described here, consider doing a unit that includes some of these concepts. If your goals include some hands-on in a shop area rather than a design class, try the insulation box experiments that use timers and thermometers to measure heat gain

or loss in a classroom model. My students built desktop models that had passive heat sinks to gather and retain the heat of the day (provided by a heat lamp) and measured using Vernier Instruments probes attached to a laptop.

Architectural design may not be a sustainable stand-alone subject for your program but energy aware curriculum can be infused in many ways and it is a way to meet standards while holding the interest of your students.

NOTE: Nels Lawrence is in his 21st year at Kaukauna High School. He is currently teaching multiple dual credit classes with FVTC, Engineering Credit with UW-Oshkosh, and teaching graduate credit classes with the UW-SP KEEP K12 Energy Education Program.

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Life After the Classroom

After a career filled with 100+ students per year, staff meetings, parent conferences, in-service, SkillsUSA events, WTEA conferences, and much more, teachers eventually retire and leave the classroom. College students graduate and a new cycle begins. We are creating this column to show life after the classroom. Each issue we plan to highlight one or more of our retired colleagues. Maybe you met them at an event, worked with them, or even had them as your classroom teacher and inspiration. If you know a retired colleague and would like to help us feature them, just contact Doug MacKenzie.

FYI, did you know that retired TEE teachers who wish to keep connected to the WTEA can become a WTEA Alumni member for only \$20 per year? Membership includes free registration to the annual conference. Contact Joe Ciontea for details.

Do You Remember Arthur J. Uher?

I graduated from Stout State College (UW-Stout) in January of 1965 with a teaching degree in Industrial Education.

I started my teaching career with the Wisconsin Division of Corrections in February of '65 at the Fox Lake Correctional Institution as an Arts and Crafts Instructor and worked there for one year. I then transferred to Central State Hospital in Waupun to work with a team of three teachers and one counselor in setting up and teaching in a Vocational Rehabilitation Program for inmates and worked there until the Fall of 1967. At Central State Hospital I was responsible for teaching woodworking, drafting and offset printing with class loads of one to three students.

My second and last job was teaching Industrial Arts, later Industrial Education and still later Technology Education at West De Pere High School. Coming to a public school brought with it the wearing of many hats. I was hired as a woodworking teacher but soon found out that was only an employment title. I taught woodworking and carpentry for about 5 years, then was asked to start a Graphic Arts Printing program which I taught for approximately the next 20 years or so. The last five years I taught CAD drafting which was most exciting and an ideal way to end a teaching career. I retired in June of 2001 after of total of 36 years of teaching.

However, teaching was not the only thing I did along the way. Being hired at WDP I was assigned the Junior Class Prom Advisor for three years. I also was head baseball coach for two years and head wrestling coach for four years. I also served as Tech Ed Department Head for a few years rotating the duty with other department members.

When VICA (SkillsUSA) came along in the 1970's the most exciting part of my teaching career started. At that point, in my mind, my job title changed to VICA Advisor first and teacher second. Being involved with students in



the extended classroom just made things better for teaching. Getting kids involved with leadership and job skills for competition not only improved their opportunities for life, but challenged other students to do better in the classroom. Putting in the extra time outside of the classroom wasn't easy, but the payoff was so great for the kids. They became friends for life and I keep running into them in Menards or Fleet Farm or at church or wherever. There was also a Tech Ed Co-op Program that I supervised in conjunction with VICA for 15 years. My younger brother was an FFA Advisor and Ag teacher and we would compare notes about doing student activities. Listening to him I found it necessary to have a VICA Banquet at the

end of the year (as does FFA) to bring together students, administrators, teachers and parents - a free banquet - burgers, brats, potato salad and beans followed by an awards ceremony with Opening and Closing Ceremonies, certificates of accomplishment for all VICA members, recognition for all Co-op employers and a thank you to the school administration. This was an annual event for many years. Of course, none of the many trips to Leadership Labs, State competition, or the banquet came free. Our annual fundraiser was a Craft Festival which went on for 24 years (with the assistance of my dear wife). The Craft Festival was another event to get kids involved and working together. VICA highlights that stand out include having a team of students take a Gold Medal at the Na-

tional Competition but not to overshadow the many ribbons and medals of all of the competitors through the years. Leadership is an important part of VICA as well and I am proud of the many state officers and the two national officers that came from our school.

Retirement came in June of 2001. I bought a new boat and motor, started bow hunting, got involved with muzzle-loading rifles, tagged several deer and one black bear, expanded my woodworking shop (in the basement). Life was good. But in 2007 I signed up



to take a woodcarving class and that opened a whole new adventure. When I was grade school age I wanted to try carving and it took me a lifetime to get there. Carving is a huge challenge in creativity but also means lots of "new tools." I have taken several local classes and have met some very talented carvers in the last few years and I carve with a couple of small groups each week. The new skills include designing, use of knives and chisels, power carvers and painting carvings.



Perhaps the most meaningful carving I do is that of Comfort Birds. After bouts of cancer for my wife and daughter and after seeing an article about Comfort Birds in a carving magazine, I decided to carve them for cancer patients that we hear of through family and friends. I have given over 100 Comfort Birds so far and will not sell them. Each Comfort Bird is given with a personal card of best wishes. I keep a log of the birds I have given and have so many stories from people receiving them, both happy and sad stories. It just makes one feel good to help someone along the way. One might say I have done this most of my life.

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SCHOLARSHIP

Eric Bergsbaken Awarded WTEA Foundation Scholarship

Eric Bergsbaken, 2016 graduate of Bonduel HS has been awarded the Future Technology Teacher Scholarship by the WTEA Foundation. His \$1000 scholarship will be used as he begins his studies at UW Stout this fall. He is eligible to apply for an additional \$1000 after the successful completion of his sophomore year. His essay and thank you is printed below.

Why Do You Want to be a Technology Education Teacher?

by Eric Bergsbaken

I will be attending University of Wisconsin-Stout to obtain a degree in Technology Education and use this degree towards becoming a Career and Technical Education teacher. It is my "goal" to help minimize the shortage of Technology teachers in our country.

Being the son of dairy farmers, I have grown up around agriculture all my life and will carry that aspect of my life with me forever. But for many young people, they didn't get to have all the experiences that I did around the farm. For me I learned welding, fabricating, carpentry, machinist skills, metal cutting, grinding, wiring, milling, drilling, sharpening, automotive care and something as simple as swinging a hammer. I learned to become a skilled craftsman just from being a small kid growing up on a farm and working side-by-side with my dad. More and more of those learned opportunities are disappearing in our country.

My inspiration to become a teacher came from my middle/high school Technology Education teacher, Mr. Schindel. He saw the talent that I have for this degree and how well I interact with the youth at our school. He has been my main motivator to pursue my becoming a teacher. Even though I have obtained all these skills already, I need a college education to keep up with technology because it's changing all the time. I have a passion for helping others and working with children, making me a perfect fit as an educator. My passion started at an early age helping others out, but most recently started working with children at school whenever my technology teachers wanted assistance with elementary and middle school classes. I am passionate, driven, and willing to do whatever it takes to be successful academically because there is nothing I want more than to one day be an educator for students who are just as driven in technology as I am. Getting a college education will help me to get my future students excited about technology and in hopes they will

continue the domino effect and eliminate the shortage of Technology teachers.



Thank You

Thank you so much for selecting me for this scholarship this year. I have always been heavily involved in the technological industry and have loved every minute of it. I have come to realize the shortage of teachers we have in Wisconsin in this field and found that a way I can help fulfill my passion for the trades is to help fill the shortage of technology education teachers. I am very excited to be starting the new chapter in my life this fall at UW-Stout.

Many thanks, Eric Bergsbaken

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The mission of the WTEA Foundation is to provide scholarships and fund STEM education opportunities for teachers, individuals interested in becoming teachers, and students. The WTEA Foundation is a public charity as defined under section 501(c)(3) of the Internal Revenue Code. Please support the WTEA Foundation. For more information please contact Joe Ciontea, WTEA Foundation Treasurer.

Careers in Energy Week October 17-21

By Sara Windjue, Wisconsin K-12 Energy Education Program (KEEP)

Careers in Energy Week is an annual week-long celebration of energy careers for students across the state and the nation!

"More than 900 companies in Wisconsin's growing energy, power and control sector employ more than 100,000 people and generate \$38 billion in annual sales. These companies represent strengths across numerous energy industry areas, from energy conservation to generation and transmission." https://issuu.com/gannettwisconsin/docs/sou-issuu5498_dwd_insert/11?e=1627378/11515125.

We'd like to invite you and your students to participate in Careers in Energy Week activities by attending an event in your area. For a list of events and for more information, visit <http://www.uwsp.edu/cnr-ap/KEEP/Pages/Careers-in-Energy.aspx> OR <http://consortia.getintoenergy.com/wisconsin/>.



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Teach the Teacher

By Corey McCauley, Hartford Union High School

This summer was a great time to learn with help from the WTEA. One of the learning opportunities was provided at Hartford Union High School in July. Teachers were provided instruction in the area of metal fabrication. Technology and Engineering Education teachers from all over the state came to HUHS for a Teach the Teacher class. Instruction was led by Corey McCauley with assistance from Brad Dzikowski, Jason Kraus and Carmen DeBack.



This course was designed for high school instructors to collaborate and enrich their classrooms. A project based learning activity was used to emphasize real-world welding and fabrication techniques. Instructors created a product using Computer Aided Design (CAD) software, Computer Numerical Control (CNC) machines, and Metal Inert Gas (MIG) welding technology. After completing this course, instructors will be able to implement and evaluate student projects relating to today's metal fabrication industry.



The teachers also participated in an Industry tour at Helgeson Industries, one of several strong supporters of HUHS. Jonathan Friess (past HUHS graduate) gave the group a tour and showed how and why TEE classes are important for all high school students. The teachers were able to see real world manufacturing processes and techniques that were covered in the class. We thank Helgeson for providing lunch and a great insight into their company.

College credit was available for all the teachers in this class through UW-LaCrosse. Many teachers took advantage of this 2 credit opportunity for their DPI license renewal process, while others took the course for professional growth.

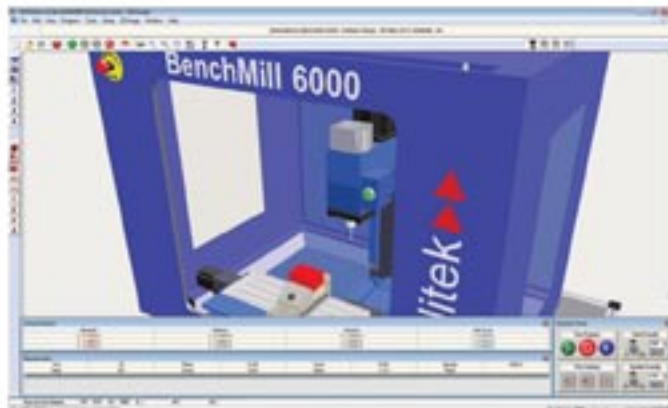
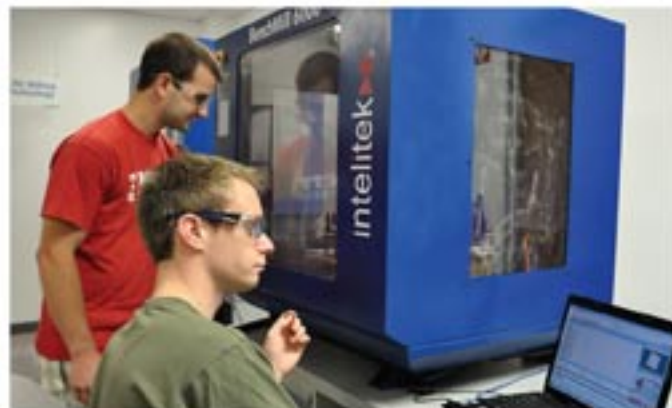
The feedback on the course was amazing. Teachers felt they learned a lot and some said "It was the best class they had ever taken." They felt it was a class they can take back to their school and put what they have learned right to work. Their challenge is to make it work within their own program. Teachers also receive the full course curriculum and handouts.

This course was the first in a series to be held at HUHS. The next course that will be offered at HUHS in the summer of 2017 will focus on the wood industry.



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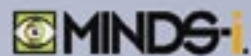
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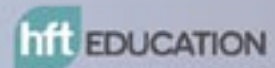
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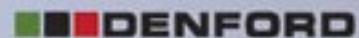
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