



**TOMORROW
STEMS
FROM IOWA**

Drake
UNIVERSITY
SOUTH CENTRAL IOWA REGION
GOVERNOR'S STEM ADVISORY COUNCIL

2026 is going full-tilt!

Since the new year we've:

- Awarded **5** fresh STEM BESTs
- Released **3** new STEM Scale-Up programs to serve educators for **3** years (apps due March 10)
- Planned **2** spring STEM Festivals
- Honored **1** outstanding STEM Teacher

What can we do 4 you?

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--Dr. Sarah Derry

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Almandinger Honored with Iowa STEM Teacher Award



Congratulations to **Jared Almandinger**, Waukee Community School District APEX Instructor, for being selected for the South Central Iowa STEM Teacher

Award! On January 14, his friends and family gathered to celebrate his accomplishments.

Almandinger is a Medical and Bioscience Research Instructor at APEX, which is Waukee's authentic learning program. Within the classroom environment, students apply career-ready research skills to community issues, forming partnerships with businesses and organizations, using college-level science, and presenting their findings to all involved.

"The most enjoyable part of APEX is the collective collaboration--it really does take the whole village," said Almandinger. "We want to ensure that every student has the opportunity to take an APEX course, so there are no prerequisites. Students who might not excel in a traditional classroom might come here and do really well."

The Ceremony

Justin Lewis, Iowa STEM Executive Director, opened comments by mentioning Almandinger's "willingness to try new things," an anchoring characteristic for those who receive this award.

Sarah Derry, SC Hub Manager, spoke about Almandinger's impact: "Jared was nominated by a student, which is always a testament to the awardee." She noted Almandinger's "generosity of spirit and strong communication skills" in building relationships between students, within APEX, and throughout the whole community.

The Nomination

Eva George nominated Almandinger (both featured in the photo). She's a student in his Medical and Bioscience Research class, serves on the Iowa STEM Youth Ambassadors and plans a career in the medical field. She said that his class changed her trajectory. She considered being a behind-the-scenes medical researcher but realized how much she enjoys interacting with the people who would need her help.

George also mentioned Almandinger's enthusiasm for making connections between STEM fields and his students' work. "Jared creates a welcoming environment that truly makes research feel exciting instead of intimidating."



The Family and Friends



Kathleen Sender (photo: center in pink), WILC Programs Administrator, coordinated the event, and the entire APEX staff came out to support him.

"Jared is passionate about the research field and provides a unique expertise," Sender said. "We're so lucky to have someone like Jared, who is motivated in this area of STEM."



Almandinger's family lent their support to the day, with some traveling over three hours to be present. "He loves what he does," said his wife, **Courtney Almandinger**.

And that is clear in all of his work with Waukee students, staff, and community members.

To learn more about APEX from the students' perspective, please continue reading this newsletter.

Five SC Schools Receive BEST Funding



2026-27 Awardees

| | |
|----------------------------|---------------------------|
| Cedar Falls CSD | MMCRU CSD |
| Clarke CSD | Monticello CSD |
| Clayton Ridge CSD | Mount Ayr CSD |
| College CSD | New London CSD |
| Denver CSD | Newton CSD |
| Des Moines Independent CSD | North Polk CSD |
| Diagonal CSD | Oelwein CSD |
| Harlan CSD | Pella CSD |
| Harris-Lake Park CSD | Pocahontas Area CSD |
| Iowa City CSD | Sigourney CSD |
| Keokuk CSD | South Hamilton CSD |
| Lake Mills CSD | St. Ansgar CSD |
| Lighthouse Schools | Storm Lake CSD |
| Mason City CSD | Sumner-Fredericksburg CSD |
| Mediapolis CSD | Waterloo CSD |

Congratulations!

Clarke CSD
Des Moines Independent CSD
Newton CSD
North Polk CSD
Pella CSD

The Governor's STEM Advisory Council at the Iowa Department of Education is awarding 30 Iowa schools with a 2026-27 STEM BEST® (Businesses Engaging Students and Teachers) Program award. This includes 14 new models and 16 returning schools that are looking to expand or rebuild their existing models.

"The unique structure of the STEM BEST Program allows schools to partner with local businesses in ways that respond to community needs while centering student voice and choice in the learning experience," said **Tanya Hunt**, Program Manager.

The STEM Council's investment of up to \$50,000 per model for professional and financial support can be used for curriculum development and coordination, educator training and development in workplace-classroom integration and preparing work-based learning environments.

"Authentic, real-world learning allows students to explore their interests and envision new pathways," added Hunt, "while strengthening community connections and supporting sustainable workforce and economic development."

Beyond BEST: APEX Provides State Model

The SC Hub joined Iowa STEM's visit to **Waukee's Aspiring Professional Experience (APEX)** this past month. APEX provided an early model for Iowa STEM's BEST program and continues to serve as a beacon and support for districts across the state.

This visit featured five of their programs: Automotive, Construction Leadership, Exploration of Health Sciences & Medicine, Medical & Bioscience Research, Animal & Veterinary Science, and Designing Communication Solutions. It started in their new CTE expansion area.



Automotive students explain how they took apart, diagnosed and reassembled a donated engine.

Stop #1: Automotive / Tyler Wright, Instructor

The automotive classroom opened this fall. Students are still settling into the space and helping to design what the program will look like.

Automotive student, **J.D.**, is helping to shape the program's future. "We'll get to see the program develop over the years," he said, "and it will be great to be a part of that."

Besides hands-on classwork, students gain certifications, go on tours, job shadow, and more. "We [APEX] organize our own tours," said **Jax**. "We've

called other schools, CFOs, lots of companies. We've learned a lot about communication skills."

Many of the students said the class changed how they view their future. **Jaden**, one of the presenters, said, "It's different from anything else I've ever taken. I've built connections with other people in the class that I'll have for life. And I've gotten to do great projects."

Aiden noted his biggest surprise about the experience: "I didn't realize how many people wanted to help you make a change in your life and grow to be better." That's the kind of lesson that changes a person's whole perspective on the world.



Cooper and **Brody** point out key components of one of the jump boxes their class created. "It's cool to know what you made is going to be put to good use," Brody added.

Stop #2: Construction Leadership / Josh Carlson, Instructor

Students in this class can find their projects benefiting folks all around Waukee. They've designed jump boxes, wrist band storage, community garden boxes, and more. Besides learning skills, they've had multiple field trips, organized their own job shadows, become OSHA safety certified, and gained soft skills in communication and leadership.



Design Communication Solutions students talk about how their class finds community projects.

Stop #3: Designing Communication Solutions (DCS) / Russ Goerend, Instructor

These creative DCS students take on community projects and help clients with print materials, podcasts, websites, digital graphics, and more. And their work is in high demand. Potential clients come to APEX and pitch their projects. Students form groups and decide what they'd like to work on. Then they spend the semester completing work that will be used by the business or organization.

We asked what makes a project particularly appealing to students. Here are the classes' combined **top three tips**:

1. Come with clearly defined goals. For example saying *I want to grow social media* doesn't define project scope.
2. Think through steps and dates.
3. Share details in the pitch or discovery meeting.



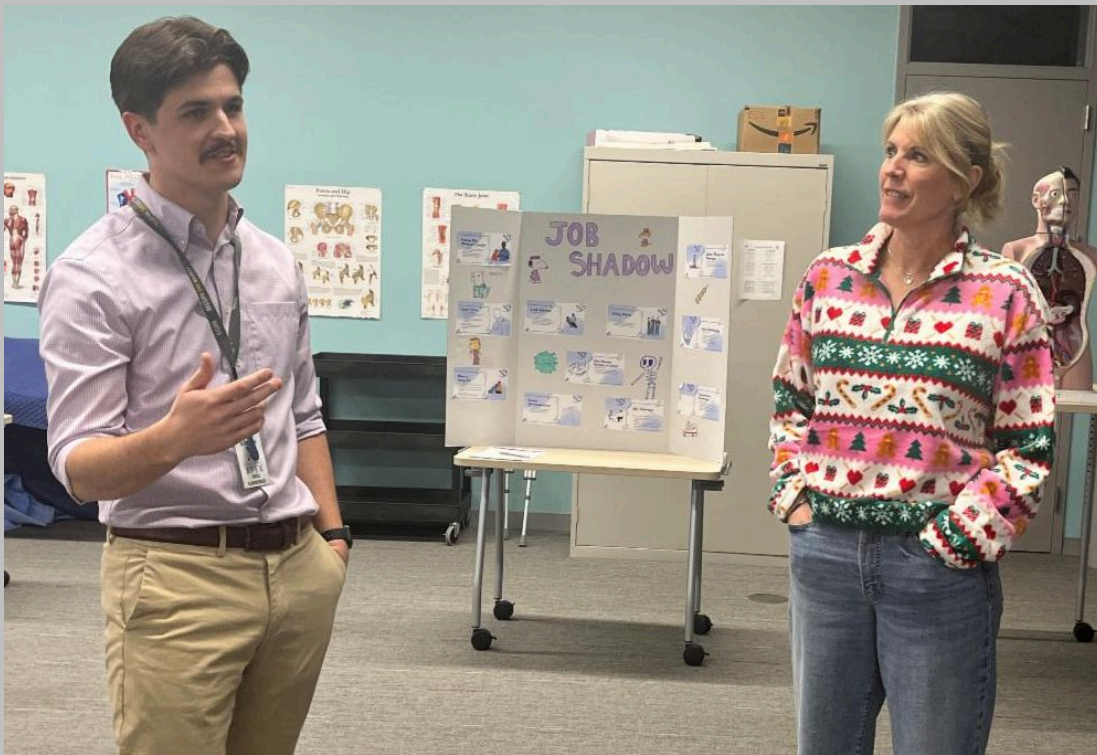
Keziah (pictured center), a student in the course, talked about her work with the Animal Veterinary Science course. "You form a connection with the zoo keeper and learn about personalized care and animal interactions."

Stop #4: Animal Vet Science / Heidi Mandt, Instructor

For all of us who said as a kid, *I want to be a vet*, this is your dream course! Students partner with Blank Park Zoo and take on a question or problem the zoo keeper has regarding one of the animals. Then students come up with a plan, observe that animal for three months and present their findings. The culminating project is a poster and presentation to zoo personnel.

"Our community partners pour a lot of time into our associates [APEX's term for students]," said Instructor **Heidi Mandt**, "so both sides need to benefit." We asked how she balances the benefit, and she offered three tips:

1. Be gracious and grateful of the host's time.
2. Keep a flexible schedule.
3. Conduct meaningful work for them.



Jared Almandinger and Lori Wenger teach in the health services pathway at APEX this semester.

Stop #5: Exploration of Health Sciences & Medicine / Lori Wenger, Instructor

Few high schools are lucky enough to have a registered nurse lead a health science course, but APEX students are fortunate to have **Lori Wenger**, R.N. Wenger teaches coursework, leads labs and organizes community-based learning visits. When referring to the CNA program offered through APEX's Medical course, Wenger remarked that students can earn a CNA certification from DMACC while in high school.

And this meaningful class has community impact. As part of the course, students participate in the **Prevent Blindness Program**, where they visit classrooms and perform vision assessments. Wenger often receives emails and hears stories from parents who say their young children wouldn't have been diagnosed without this service.



Natalie (above left), Riley (right) and Drew formed a group to take on a project with Polk County Conservation. The three researched E. Coli in the Jordan Creek watershed. Their findings expanded into chloride (from salt application), nitrates (think poop), and even caffeine.

Stop #6: Medical & Bioscience Research / Jared Almandinger, Instructor

Our final stop took us to our tour guides class, **Jared Almandinger**. His students choose a research topic that a community partner needs help completing. Then they spend the semester conducting original research, tracking data and hunting for solutions. The work culminates in community presentations with business partners.



APEX's BEST Practices of WBL Systems



Elise (pictured above left with Drew), was one of our tour guides. She appreciates how APEX grades: "We have performance reviews at the end of the term." Elise is also an Iowa STEM Youth Ambassador.

Set Clear Classroom Procedures:

Elise talked about the grading process: "Students discuss how they did one-on-one with the instructor. You need to make clear what you did well. We learn to advocate for ourselves. We're graded on growth, professional behavior, engagement, and reflection over traditional tests."

Teachers are referred to as instructors, creating a more equal relationship in the classroom. Students call instructors by their first names, like they would a work colleague or manager. Instructors help facilitate learning and mentor students during their journey.

Encourage Students to Dress for Their Day:

Jared Almandinger, Research Instructor, took us by a closet full of free clothing. "It's available to all APEX students," he said. "We expect students to dress for their work day."

Some students need dressy business clothing and some need gear for outdoor work. The closet is filled with community donations. "Half of which still have the tags on," Almandinger added.

Teach Soft Skills First

Prior to visiting or working with business partners, APEX students must complete coursework in developing soft skills. Almandinger said, "A lot of programs struggle because they're not preparing students with skills to help them navigate at a professional level."

Soft skills include communicating with adults in-person and via email, building cordial professional connections, being on-time, advocating for yourself and more.

Make Sure Everyone has a Ride

The district offers shuttles that travel from the high schools to the Waukee Innovation and Learning Center (WILC) where APEX is housed. This ensures transportation is never a barrier to student success.

*If you would like to contact APEX or any other Iowa STEM BEST recipient, please reach out via **email to Program Manager Tanya Hunt.***

Scale-Up Takes on New 3-Year Format

Applications for the Scale-Up Program for the 2026–2027 school year are open! These programs bring innovative, hands-on STEM experiences directly into classrooms—empowering students to explore, create, and collaborate.

Iowa STEM Scale-Up now features **three programs + three years** of support. The goal of this model is to provide sustained support to educational organizations/schools over the course of three years in order to enhance educator professional learning and student outcomes.

* * *

STEMwonder

Grade Level: PK - 3
Presented by: Iowa Regents' Center for Early Developmental Education at the University of Northern Iowa

Overview: Carefully curated kits of materials engage students in science and engineering concepts through play-based integrative STEM and literacy experiences that motivate students to use the tools of literacy.



INFO WEBINARS

- **Thursday, February 12 at 4:00 p.m.**
- **Tuesday, February 17 at 4:00 p.m.** (recording available after)

[Click for STEMwonder Fact Sheet](#)

Exploring AI and the Future of Work

Grade Level: 4 - 12
Presented by: CodeJoy LLC

Overview: Provides a focused and engaging learning experience to address classroom AI integration through hands-on activities.

Fact Sheet

INFO WEBINAR

Tuesday, February 17 at noon
(recording available after)



[Click for Exploring AI Fact Sheet](#)

First Tech Challenge (FTC)

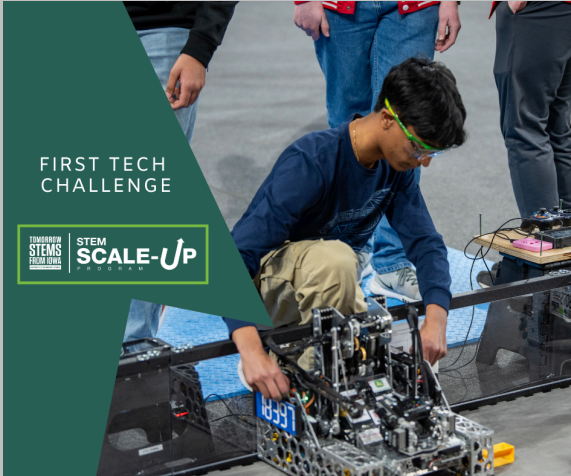
Grade Level: 7 - 12
Presented by: College of Engineering, University of Iowa

Overview: Students design, build and program robots to compete in events. FTC emphasizes innovation, collaboration, and real-world problem-solving through a team-based competition.

Fact Sheet

INFO WEBINAR

- View **recording**.



[Click for FTC Fact Sheet](#)

To learn more about the Scale-Up Programs click [HERE](#).

IMMAWII Education Day STEM Fest

IMMAWII Education Day STEM Fest

THANK YOU, EXHIBITORS!

- ASHRAE Iowa Chapter
- Baker Group
- Blank Park Zoo
- College of Pharmacy & Health Sciences Drake University
- Collins Aerospace
- East Penn Manufacturing
- Girls Rock DSM!
- ISU WiSE
- Iowa Heart Foundation
- Jewels Academy
- MidAmerican Energy
- Polk County Conservation
- Science Center of Iowa
- Turner Construction

Thanks to the exhibitors, students, educators, and community members who came out for the I'll Make Me A World in Iowa Education Day STEM Festival. Below, please find a few photos of the experiences that make the whole event educational and joyful.



DMACC Future Fest Brings Hands-on Careers



The SC STEM Hub is partnering with the **DMACC Work-Based Learning Department** to host the second annual Future Fest! The experience is aimed at connecting over 600 5th grade students with career exploration through engaging STEM activities.

Exhibitors who register by February 13 will be featured on the back of student t-shirts.

Details:

- Date: Thursday, April 2, 2026
- Time: 9:30 AM – 2:00 PM
- Session 1: 9:30 AM – 11:30 AM (Set-up from 8:30-9:15 AM)
- Session 2: 12:00 PM – 2:00 PM (Set-up from 11:30 AM – 11:50 AM if participating only in Session 2)
- Location: Building 5, DMACC-Ankeny (2006 S Ankeny Blvd, Ankeny, IA 50023)

Register via **Google Form**. If your organization isn't able to use Google Drive, please email us, and we'll get you registered. Email DMACC's **Karen Swanson** if you have questions.

CLICK to Register to Exhibit!

Physics Day at Adventureland Exciting & Educational

A vibrant roller coaster with red tracks and green and yellow cars is shown in mid-air against a clear blue sky. The word "ADVENTURELAND" is written in red, bold, sans-serif capital letters in the top left corner of the image.

ADVENTURELAND

2026 PHYSICS DAY

BRING YOUR STUDENTS FOR A FUN-FILLED DAY OF
LEARNING OUTSIDE OF THE CLASSROOM AT
ADVENTURELAND PARK!

TICKETS JUST
\$34.99
PER PERSON

ADD A LUNCH TICKET FOR
\$14.99 PER PERSON

FRIDAY, MAY 1, 2026 10:00 AM - 2:00 PM

FOR MORE INFORMATION OR TO REGISTER YOUR GROUP
CONTACT [JOSIE SCHOOF](mailto:josie@adventurelandpark.com) AT [JOSIE@ADVENTURELANDPARK.COM](mailto:josie@adventurelandpark.com)

Tony McCutchan, Winterset High School physics teacher, pitched an idea for **Physics Day** to Adventureland Park. He envisioned a day of learning based on lessons plans and tools for students to collect real-time data as they ride the rides, analyze that data, and apply what they learned in their classes to their experiences in the park.

The event will happen **May 1**, and they're still taking requests from schools who would like to attend. If you're a middle or high school teacher and would like to provide your students with a hands-on physics experience, this day is perfect for you.

[Click to Email Josie with Questions](#)

Who are the people in our neighborhood?



Eva George, left, nominated Jared Almandinger for the Iowa STEM Teacher Award. They're pictured with Dr. Sarah Derry and Drew Emerson at the January 14th award ceremony held at Waukee's WILC building.

* * *

Emerson Champions Authentic Learning and Shares Funding Opportunity

South Central Regional Board Advisory Member **Drew Emerson** serves as a Business Engagement Consultant for IowaWORKS. He's dedicated to ensuring Iowa students have opportunities that lead to great careers.

Emerson said, "The collaboration between business, students, and teachers is essential in cultivating the next steps for the future of Iowa's workforce." He spends his days building those bridges--one kid or one classroom at a time.

His office, **Iowa Workforce Development (IWD)**, is opening a new round of grant funding to help employers advance summer internship programs for Iowa's youth. These efforts can drive new career interests and help employers further build their workforce pipeline.

Applications are open through **Monday, February 16, 2026, at 2:00 p.m.** Here are a few details; visit iowagrants.gov for more information.

- Provide internships to youth at risk of not graduating, from low-income households, or who face barriers to upward mobility in the labor market.

- Demonstrate their ability to recruit and co-enroll internship participants in their local area's Workforce Innovation and Opportunity Act (WIOA) Title I Youth Program.
- Programs must be based in a high-demand occupation as determined by the state (**view Iowa's high-demand occupations list**).
- Awarded funds can be used for participant wages, compensation after program completion, training resources, program supplies and materials, and administrative costs.

Email **Emerson** if you have collaboration ideas or questions.

Apply Now for Summer STEM Externships

**TOMORROW
STEMS
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**IOWA STEM TEACHER
EXTERNSHIPS
PROGRAM**

**Why you should be a
STEM Teacher Extern**

»» One of the best Teacher Professional Development opportunities available!

What is a STEM Teacher Externship?

- ✓ A 5-6 week paid summer experience for STEM Teachers
- ✓ Teachers are placed with local workplaces to work alongside skilled employees
- ✓ A great way to build or strengthen school workplace partnerships
- ✓ Teacher externs can earn up to \$5000 and 3 graduate credits from UNI

**SECONDARY STEM TEACHERS
APPLY TODAY**

Visit our website
EDUCATE.IOWA.GOV/STEM/EXTERNSHIPS



Benefits of STEM Teacher Externships

- ✓ Build long-lasting school business partnerships
- ✓ Improve student STEM experiences and career knowledge
- ✓ Teachers see and use the latest equipment and real-world applications in a workplace environment

[Click for Externship Info](#)

[Email Program Manager Ann Gritzner](#)

SC Advisory Board



Ken Bozer



Alexis Cordts

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 Jessica Schellhorn
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*co-chairs

* * *

Important Dates

March

- March 10 -- Scale-Up Applications Due
- March 27 -- South Central STEM Region Board Meeting

April

- April 2 -- DMACC-Ankeny Future Fest for 5th Graders (info above)

May

- May 1 -- Physics Day at Adventureland (info above)

October

- October 17 -- All-Southern Iowa STEM Fest, Corydon
- October 24 -- Iowa Department for the Blind STEM Fest, Des Moines

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