

IOWA CLASSROOMS + WORKPLACES SUMMIT 2024



*produced by the Governor's STEM Advisory Council
at the Iowa Department of Education and partners*

Wednesday, April 10, 2024 – 9:30 a.m. to 3:30 p.m.

Iowa Classrooms + Workplaces Summit

Iowa Events Center | Community Choice Credit Union Convention Center
833 5th Avenue | Des Moines, IA 50309
Grand Ballrooms

- 8:30 to 9:30 a.m.** **Registration** – Continental Breakfast and Networking
- 9:30 to 10:00 a.m.** **Welcome –**
McKenzie Snow, Director, Iowa Department of Education
and
**Diane Young, Owner and Director of Technical Services, Foundation Analytical
Laboratory, Inc., Co-Chair, Governor's STEM Advisory Council**
and
Justin Lewis, STEM Bureau Chief - Innovation Division, Iowa Department of Education
- 10:00 to 10:30 a.m.** **Credentials to Careers**
Quentin Suffren, ExcelinEd Senior Advisor
- 10:40 to 11:30 a.m.** **The Future of Innovation and STEM: CS and AI Education as a Foundation**
Pat Yongpradit, Code.org Chief Academic Officer presenting with moderator
Hannah Weissman, Code.org Director of Policy
- 11:30 to 12:00 p.m.** **Lunch and Networking**
- 12:00 to 12:20 p.m.** **The Importance of Science Education in Our World Today**
Rebecca Lucas, Kemin Industries Human Nutrition and Health Global Director of Research and
Development
- 12:30 to 1:00 p.m.** **Iowa STEM Teacher Awards Recognition, sponsored by Kemin Industries**

1:05 to 1:45 p.m. Breakout Sessions 1

Rooms 302 thru 304 // Build Math Relevance: Creating Context for Secondary Math Enriches Content & Connects Careers

When are we ever going to use this in real life? Courses that contextualize high-level mathematics with hands-on, real-world projects address this common complaint and build student confidence. During this session, attendees will hear from students, educators, and community partners about schools that have coupled the following courses: algebra + business and geometry + career & technical education. Measurable outcomes include higher student interest and an increase in academic success.

Moderators:

April Pforts and Jody Vanderloo, Mathematics Consultants, Iowa Department of Education Bureau of Learner Strategies and Supports
Sarah Derry, South Central Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

Emily Logan, Mathematics Curriculum Consultant, Grant Wood Area Education Agency
Roxanne Paulsen, Mathematics Teacher, Marion Community School District
Student(s), Amped on Algebra course, Marion High School
Stacey Cole, Superintendent, Storm Lake Community School District
T.J. Meyerholz, Senior Pre-Construction Manager, Ryan Companies

Rooms 312 thru 314 // Embracing Concurrent Enrollment Coursework to Up the Ante in WBL Programs

High school students in Iowa can take college-level courses for free in the state of Iowa. During this session, staff from the Iowa Department of Education, Iowa Lakes Community College, teachers and students from MOC- Floyd Valley School District will present an overview of Senior Year Plus programming in Iowa, including concurrent enrollment courses, the summer college credit program and career academies. Session attendees will learn how to make connections between concurrent enrollment coursework and work-based learning programs like the STEM BEST (Businesses Engaging Students and Teachers) Program.

Moderator:

Mary Trent, Northwest Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

Heather M. Meissen, Education Program Consultant - Program Quality, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
Kari Hampe, Director of High School Partnerships, Iowa Lakes Community College
Grant Hedstad, Assistant High School Principal, MOC-Floyd Valley Community School District
MOC-Floyd Valley students involved in the STEM BEST and Concurrent Enrollment Programs

Rooms 315 thru 318 // Advancing Classroom + Workplace Partnerships: Teachers in the Workplace

When am I ever going to use this? Why isn't this being taught in school? How do we educate students about local career opportunities and assure they have the needed skills? This session will focus on finding creative solutions to these common questions by giving teachers hands-on experiences at community workplaces. STEM Teacher Externships and Micro-Externships are transforming how educators teach and the learning experience for students while enhancing the work of business partners and creating a workforce pipeline. Participating teachers have found these programs to be some of the most valuable professional development experiences of their careers. Hear from industry professionals, educators, students and program staff to find out how these two programs can benefit community business partners, teachers and students all while building Classroom + Workplace Partnerships.

Moderators:

Ann Gritzner, STEM Teacher Externships Program Coordinator and STEM BEST Program Assistant Coordinator – Iowa Governor's STEM Advisory Council
Joanne Tubbs, Administrative Consultant, Iowa Department of Education Bureau of Educational Examiners

Presenters:

Jessica Howard, Computer Science/Business Teacher, Lone Tree Community Schools; STEM Teacher Extern; Iowa STEM Teacher Award recipient
Kathleen McGrane, AP Chemistry Teacher, West Des Moines Valley; STEM Teacher Extern

Kirby Phillips, Human Resource Manager, Muscatine Power and Water
Hajdi Zulic, Corporate Trainer, MidAmerican Energy Company
Students benefiting from these opportunities for teachers

1:50 to 2:30 p.m. Breakout Sessions 2

Rooms 305 thru 307 // Connecting Science Classrooms to STEM Experiences in the Community

This session will connect community stakeholders and provide a forum for sharing and discussing strategies for designing STEM experiences outside of the classroom (e.g., workplace, community science, etc.). An emphasis will be placed on building community partnerships and potential models for students at different age levels.

Moderators:

Matt Stier, Southeast Regional STEM Manager, Iowa Governor's STEM Advisory Council
Christopher Like, Educational Program Consultant-Science, Iowa Department of Education Bureau of Learner Strategies and Supports

Presenters:

James Pifer, K-12 Science Professional Development and Curriculum Coordinator, Southeast Polk Community School District
Student(s) benefiting from these opportunities.
Gustaf Elliott, Conservation Education Specialist, Communication, Iowa Department of Natural Resources Outreach and Marketing Bureau

Rooms 308 thru 310 // Youth Voice on Embedding STEM Careers through Individual Career and Academic Plan (ICAP)

Join us for a session that combines career discussions with youth spanning PK to 20 and an exploration of ICAP's core areas, including a focus on STEM careers. You will get first hand stories from Iowa's youth, school and businesses that are fully embracing career development, particularly within STEM fields. We will start with a quick intro to ICAP and highlight districts that are leading the way. Then, we will dive into Panel discussions that focus on integrating insights on STEM careers and supporting students with career exploration. Engage, exchange ideas and walk away with innovative strategies to seamlessly weave exploration and STEM careers into your school's program!

Moderator:

Casey Wenstrand, Southwest Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

Erica Woods-Schmitz, Education Program Consultant - Career and Academic Planning, Iowa Department of Education Bureau of Community College and Postsecondary Readiness
Joe Collins, Education Program Consultant - Health Science and Work-Based Learning, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
Kattie Lewis, Director of Southwest Iowa Technology Career Hub (SWITCH)
Rachel Ramaeker, Director of Secondary Programs, Southwestern Community College
Katelin George, Human Resources and Marketing Manager, Malvern Bank
Anne Crowley, BSN RN, District Nurse, Murray Community School District and Concurrent Health Science Instructor, Southwestern Community College
Addilyn Danley, Senior, Murray High School

Room 315 thru 318 // Credentials in Action: Elevating CTE Classrooms with Industry Recognized Credentials

Embark on a transformative journey where education meets industry relevance! Join our breakout session to explore innovative strategies for aligning Career and Technical Education (CTE) classrooms with the latest industry-recognized credentials (IRCs). This session will delve into dynamic and achievable approaches that bridge the gap between classroom learning and credentialing that propels students toward successful and fulfilling careers.

Moderator:

Ann Gritzner, STEM Teacher Externships Program Coordinator and STEM BEST Program Assistant Coordinator – Iowa Governor's STEM Advisory Council

Presenters:

Dennis Harden, Section Chief - Career and Technical Education, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
Cale Hutchings, Applied Sciences and Industrial Technology Consultant, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness
Ben Applegate, Industrial Technology Instructor, Waverly-Shell Rock High School
Bryan Benham, Industrial Technology Instructor, Waverly-Shell Rock High School
Waverly-Shell Rock High School Students:
Mitch Moris - Junior
Brock Siems - Senior
Jack Thorson - Senior

2:35 to 3:15 p.m. Breakout Sessions 3

Rooms 302 thru 304 // Leveraging Community Partnerships to Expand Computer Science Education

Discussion and examination of how to take computer science education to the next level by incorporating community partnerships into the classroom. During this session, hear from both the education and business sector about the value of partnerships, as well as how to begin partnerships and how to begin to examine what you can do next to take computer science education to the next level.

Moderator:

Mauree Haage, North Central Regional STEM Manager, Iowa Governor's STEM Advisory Council

Presenters:

Justin Lewis, STEM Bureau Chief - Innovation Division, Iowa Department of Education
Kyle Kuhler, Information Technology (Web Programming and Cybersecurity) Instructor, Waterloo Career Center
Adrian Gomez, Student, Waterloo Career Center
Steven Davis, CEO and co-founder, Bio:Neos
Aaron Hibben, Service Desk Supervisor, VGM Group, Inc.

Rooms 312 thru 314 // Ways to Expand STEM Education Opportunities: STEM Scale-Up Program and Beyond

The Iowa STEM Scale-Up Program has been in existence since 2012. Aligning with the Iowa STEM Council's mission to increase interest and achievement in STEM studies and careers through school + business partnerships. Schools in Dubuque and Waterloo were awarded the Scale-Up Program First Lego League Explore during the 2021-2022 school year. Learn how the schools implemented the program and created partnerships. During the session students will demonstrate the program. Join the discussion to discover how you can be an engaged partner with a Scale-Up Program.

Moderators:

Jeff Beneke, Northeast Iowa Regional STEM Manager, Iowa Governor's STEM Advisory Council
April Pforts and Jody Vanderloo, Mathematics Consultants, Iowa Department of Education Bureau of Learner Strategies and Supports

Presenters:

Erin Sale, STEM Coach K-12, Waterloo Community Schools
Ryan Christoffer, Elementary Curriculum Coordinator, Waterloo Community Schools
Theresa Northouse, Media Coach, Marshall Elementary School, Dubuque
Danelle Tigges, Staff Engineer, John Deere Dubuque Works
Elementary Students, Waterloo Community Schools

Rooms 315 thru 318 // Scaling Work-Based Learning through School+Business Partnerships

Hear from education leaders, students, and community leaders from Okoboji Middle School and their No Boundaries model about the importance of work-based learning and the partnerships formed through these experiences. Participants will come away with ideas for inspiration, resources to explore and a network of practitioners to tap into.

Moderators:

Tanya Hunt, STEM BEST Program Coordinator, Iowa Governor's STEM Advisory Council at the Iowa Department of Education
Joe Collins, Education Program Consultant - Health Science and Work-Based Learning, Iowa Department of Education Bureau of Community Colleges and Postsecondary Readiness

Presenters:

Becky Rients, No Boundaries Facilitator, Okoboji Middle School

No Boundaries Middle School Students

Community Partners forged by No Boundaries STEM BEST model.

3:20 to 3:30 p.m. Closing Remarks – The Honorable Kim Reynolds, Governor of Iowa

THANK YOU TO OUR GENEROUS SPONSORS AND STEM EDUCATION ADVOCATES THROUGHOUT THE YEAR!

- Alliant Energy
- Collins Aerospace
- DMACC
- Des Moines Greater Partnership
- Iowa Business Council
- Wartburg College