

GREATNESS[®]
STEMS
FROM IOWANS

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

Special Announcement : **2018-19 STEM Scale-Up Programs**

[Click for a PowerPoint: 2018-19 Scale-Up Programs](#)



The 2018-19 Scale-Up Program application will open Monday, January 22. The Scale-Up program menu ranges from coding programs to hands-on biotechnology and agriculture projects to STEM career exploration.

Iowa's educators who want to continue inspiring students in STEM now have an opportunity!

CASE - Animal and Plant Biotech*

Description: Experience industry appropriate applications of biotechnology-related plant and animal agriculture through hands-on activities, projects and problems in biotechnology. Research and experimental design will be highlighted in industry-appropriate investigations that involve micropipetting, bacterial cultures and transformations, electrophoresis, and the polymerase chain.

Grade Level: 10-12

For Settings: In school

For more information: <http://www.case4learning.org/>

CASE - Environmental Sci Issues*

Description: Investigate areas that include ecosystem management, sustainable agriculture, energy choices, and pollution. Students will research, investigate, experiment, and document a project, and communicate solutions to peers and members of the professional community.

Grade Level: 10-12

For Settings: In school

For more information: <http://www.case4learning.org/>

Computer Science Principles*

Description: A year-long Code.org course that aligns with CSTA standards and 21st Century Learning Skills. It can be delivered as an Advanced Placement course. Teachers need no prior

computer technology experience to qualify for training.

Grade Level: 9-12

For Settings: In school

For more information: www.code.org/educate/csp

Engineering Everywhere*

Description: Helps students think creatively and solve globally relevant engineering challenges during out-of-school programs. Each unit has an introduction to the engineering process, culminating design challenge, science and mathematics standards, and 21st Century Learning Skills.

Grade Level: 6-8

For Settings: Out of school

For more information: www.eie.org/engineering-everywhere

Making STEM Connections

Description: Activities that help students connect STEM to their daily lives and develop competencies essential to Iowa's future workforce. Grounded in making, safety, upcycling, creative constraints, art, and reinventing technologies. Lessons build on NGSS standards, reflect Iowa Common Core, and include National CORE Art Standards.

Grade Level: K-9

For Settings: In school and out of school

For more information: www.sciowa.org/makingstemconnections

Pint Size Science*

Description: Four hands-on modules: one introductory unit and three chosen by the educator. Features Iowa Early Learning Standards/GOLD Objectives, NGSS, Iowa Common Core math and literacy and 21st Century Learning Skills. Includes kit materials, curriculum guides, website and webinar support.

Grade Level: PreK-2

For Settings: In school and out of school

For more information: www.sciowa.org/pss

PowerTeaching Math

Description: Includes active instruction, team practice, formative and formal assessments, feedback and motivation, and a designated PowerTeaching coach. Contains Iowa Common Core Mathematics Standards and 21st Century Learning Skills.

Grade Level: 6-8

For Settings: In school

For more information: www.successforall.org

PLTW: Computer Science for Innovators and Makers*

Description: Using real-world scenarios, students use the design process, which includes defining the problem, generating concepts, and designing and presenting a solution. Aligns to NGSS, Iowa Common Core for Mathematics and ELA, and CSTA Standards.

Grade Level: 6-8

For Settings: In school

For more information: <http://www.pltw.org>

Ramps and Pathways

Description: Explore the engineering process and mathematics of spatial thinking and geometry through construction of marble runs; mathematics and literacy skills through data collection; physics of force and motion through conversations and retesting; and 21st Century Learning Skills related to creation and innovation.

Grade Level: preK-2

For Settings: In school and out of school

For more information: www.rampsandpathways.org

STEM in Action*

Description: With options in Life, Earth and Physical Sciences, each educator-chosen kit (5 for PreK, 9 for K-2, 9 for 3-5) is formatted into small, manageable bits of time with limited consumable items. Available in English and Spanish.

Grade Level: PreK-5

For Settings: In school and out of school

For more information: www.hand2mind.com/steminaction

Common Questions

Q: Who can apply?

A: Any educator, formal or informal, serving Iowa students PreK-12th grade.

Q: When to apply?

A: January 22 thru March 5, 2018

Q: Still have questions?

A: Contact Dr. Sarah Derry, SC Regional STEM Manager *OR* watch for additional information that will be posted during the next few weeks at iowastem.gov

Dr. Jeff Weld Shares Iowa STEM Story in Washington, D.C.



Weld's vision shaped STEM education success in Iowa and will now have that same opportunity for impact on a national stage.

home."

Jeff Weld, executive director of the Iowa Governor's STEM Advisory Council, has accepted a one-year role with the National Science Foundation and the University of Northern Iowa. In this position, Weld will serve as senior policy advisor and assistant director for STEM Education at the White House Office of Science and Technology Policy and staff associate in the Directorate for Education and Human Resources at the National Science Foundation. Weld's assignment is effective immediately and extends through December 10, 2018.

"Jeff is a true champion of STEM, not only in Iowa, but throughout the nation," said Gov. Reynolds.

"There is no better individual to serve the Administration on policy issues related to science, technology, engineering, and math education. His experience in Washington will undoubtedly strengthen and advance STEM initiatives here at

Cindy Dietz, director of business communications for Rockwell Collins, has been appointed as interim executive director of the STEM Council. Dietz has been integral in expanding STEM education in the state. She contributed to the Iowa STEM Education Roadmap, which ultimately shaped the STEM Council. As one of the original STEM Council members, she has been involved in various working groups and initiatives that have impacted students throughout Iowa.

"We are honored to have Cindy Dietz serve as the interim executive director of the STEM Council," said Roger Hargens, Accumold president and CEO and co-chair of the STEM Council. "She has already proven her leadership in Iowa STEM and we look forward to continued growth and advancements in the coming year."

Carrie Rankin will serve as the managing director of the STEM Council. Rankin has been the STEM Council assistant director for development since 2013.


Contact

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**Dr. Sarah
Derry**
South Central
Regional STEM
Hub Manager

S = Synchronize learning content to applications out there.

T = Teachers experience the world of commerce.

E = Engage the whole community in education.

M = Merge disciplines to focus on challenges, not subjects

- Dr. Jeff Weld