

A NEW MINDSET



THE PROGRAM

STEM Innovator® is professional development for educators who want to infuse innovation, invention and entrepreneurship into their schools. The program prepares teachers to facilitate classrooms where students work on a team to solve authentic problems that students encounter in their everyday life. Students advance solutions to a problem by collecting and analyzing data of prototype solutions.

Classrooms are transformed into incubator, Maker, and Fab Lab spaces similar to those in industry. Across the project, students practice and learn the value of adaptability, failing, resilience, effective communication and data-driven decision making – all skills critical for STEM careers of the future.

STEM Innovator® provides curriculum, instruction and assessment tools aligned to national education standards and industry best practices, including 21st Century Skills, NGSS, NCTM, ISTE, NCSEE, Design Thinking and Lean Startup Methodology.

Students demonstrate competencies through authentic tasks similar to those expected in career settings and post-secondary education.

INNOVATION & ENTREPRENEURSHIP

One of the nation's first STEM innovation and entrepreneurship professional development programs for middle and high school teachers built on the expertise of the University of Iowa.

BROAD ECONOMIC GOALS

By connecting students, teachers, and business and industry professionals, STEM Innovator® aims to widen the pool of students prepared for STEM careers and future entrepreneurial pathways.

The U.S. Department of Commerce estimates that STEM jobs will grow 17 percent by 2018 — nearly double the growth rate for non-STEM fields. By 2018, the United States will have more than 1.2 million unfilled STEM jobs because there will not be enough qualified workers to fill them.¹

STEM Innovator® helps foster a STEM pipeline, which will be vital to advancing our nation's economic prosperity.

WHAT MAKES US DIFFERENT?

STEM Innovator® is research-driven – incorporating the best evidence-based research over the past 25 years in cognitive science, mathematics and science education, entrepreneurship, and business education.

¹"STEM: Good Jobs Now and For the Future," U.S. Department of Commerce, Economics and Statistics Administration.

AT A GLANCE



WHAT'S IN IT FOR PARTICIPANTS?

- **Curriculum toolkit:** Access to a full curriculum toolkit, including activities and assessment tools, for STEM innovation, entrepreneurial mindset and 21st Century Skills through a problem-based learning framework.
- **Partnerships:** Build partnership models with local, state and national STEM industry experts.
- **Community connections:** Authentic connections with local, state, and national business and industry leaders.
- **Students' college and career readiness:** Students gain career awareness and development in STEM and entrepreneurship. Plus, they will graduate with the innovation skills to succeed in the global economy.

COLLEGE CREDIT

High school students (9-12) of certified STEM Innovator® teachers may earn University of Iowa entrepreneurship credits from the John Pappajohn Entrepreneurial Center.

- **Requirements:** Students submit an innovation portfolio for review and sit for a rigorous proficiency exam.
- **Cost:** Students who qualify may purchase three semester-hour credits for \$150. These are not dual-enrollment credits and may be transferred to other colleges.

Students demonstrate course competencies through a STEM Innovator® teacher's STEM class, independent

FOR MORE INFORMATION

- **Web:** www.steminnovator.org
- **Email:** stem-innovator@uiowa.edu
- **Phone:** (319) 335-2204

STEM Innovator® is a product of the Jacobson Institute. The Jacobson Institute is a part of the John Pappajohn Entrepreneurial Center.

TEACHERS WIN

- **Certification:** University of Iowa STEM Innovator® Certified Instructor
- **Graduate credit:** Up to five graduate-level credits from the University of Iowa

SCHOOLS WIN

- **Certification:** University of Iowa STEM Innovator® Certified Instructors
- **Innovation:** Skills and support to build the innovation model that works for your community
- **21st Century Skills:** Graduates with the innovation skills to succeed in the global economy

STUDENTS WIN

- **College and career readiness:** Students gain the skills they need to succeed and compete in the global economy.
- **College credit**

COMMUNITIES WIN

- **Rich, authentic partnerships with schools**
- **Access to talent pipeline**