

A close-up photograph of a young woman in a blue graduation cap and gown hugging a man in a light blue shirt. The woman is wearing a blue mortarboard with a red and gold tassel. She has a ring on her finger and a watch on her wrist. The background is a soft-focus outdoor scene with green foliage.

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

The Pathways Resource Center: Supporting Student STEM Programs of Study

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Illinois Race to the Top Application

One RTTT goal is to create a statewide network of partners delivering high quality instructional resources supporting P-20 STEM Programs of Study in key STEM application areas.

- Recognizing that a standards-aligned instructional system will need to support college and career readiness for all learners, a key activity is to support P-20 STEM Programs of Study as a framework for high school reform.



LEA Expectations

Participating LEAs will be required to:

- Establish an individual learning plan (ILP) program, commencing in the seventh grade, that identifies students' academic and career interests and aligns to a P-20 STEM Program of Study model. The ILP program must be implemented at a minimum in the predominant feeder schools for high schools implementing P-20 STEM Programs of Study.
- For LEAs serving grades 9-12, implement two or more P-20 STEM Programs of Study promoting STEM application areas.



STEM Areas

- Agriculture, Food, and Natural Resources
- Energy
- Manufacturing
- Information Technology
- Architecture and Construction
- Transportation, Distribution, and Logistics
- Research and Development
- Health Sciences
- Finance



Alignment with Illinois Career Cluster Model

Illinois Career Cluster Model	RTTT STEM Areas
Agriculture, Food & Natural Resources	Agriculture, Food & Natural Resources
Architecture & Construction	Architecture & Construction
Arts, Audio/Video Technology & Communications	
Business Management & Administration	
Education & Training	
Finance	Finance
Government and Public Administration	
Health Science	Health Science
Hospitality & Tourism	
Human Services	
Information Technology	
Law, Public Safety, Corrections & Security	
Manufacturing	Manufacturing
Marketing	
Science, Technology, Engineering & Mathematics	Research and Development
Transportation, Distribution & Logistics	Transportation, Distribution & Logistics
	Energy

State Supports for STEM Programs of Study

- Illinois Shared Learning Environment
Platform for ILP and POS supports
- College and Career Readiness Programs
Support POS alignment to postsecondary
- STEM Learning Exchanges
Support POS implementation in critical STEM areas
- Pathways Resource Center
Centralized resource and assistance center for STEM Learning Exchanges and high schools



STEM Learning Exchanges *Defined*

STEM Learning Exchanges are a public-private infrastructure that are organized to advance college and career readiness and support local implementation of P-20 STEM Programs of Study by coordinating statewide networks of P-20 education partners, business, labor, and other organizations on a sector-by-sector basis to coordinate planning and investment, aggregate resources, and review talent pipeline performance. STEM Learning Exchanges will provide the resources and tools for LEAs to develop the required P-20 STEM Programs of Study promoting STEM application areas.



STEM Learning Exchanges

Implementation Organizations

Agriculture, Food & Natural Resources	Illinois Foundation for Future Farmers of America
Health Science	University of Illinois at Chicago
Information Technology	CompTIA Workforce Development LLC
Manufacturing	Illinois Manufacturers Association Education Foundation
Research and Development	Illinois Science and Technology Institute

Planning Organizations

Energy	Illinois State University
Finance	Chicagoland Chamber of Commerce
Transportation Distribution and Logistics	Illinois Chamber of Commerce Foundation



Pathways Resource Center Goals

1. Develop and position the PRC as a strategic vehicle for P-20 change in Illinois, with key responsibilities for communication and support of STEM programs of study.
2. Develop the capacity of the local school districts to implement STEM/career clusters, pathways, and programs of study.
3. Develop a resource bank of evidence-based materials, which can be accessed by local school districts and Learning Exchanges, that support development and implementation of STEM programs of study.
4. Support the sustainability of the STEM programs of study, through continuous efforts to identify external funding opportunities for the STEM Learning Exchanges.



Goal 1: *PRC as strategic vehicle for P-20 change in Illinois*

- Develop the PRC structure and hire key personnel
- PRC representation at regional and statewide meetings of key stakeholder groups
- Facilitate communication and information flow across the STEM Learning Exchanges
- Promote ongoing collection and distribution of data by STEM Learning Exchanges and school districts
- Disseminate the work of the PRC



Goal 2: Develop school districts' capacity to implement STEM programs of study

- Determine expectations of local districts for implementation of Programs of Study
- Identify capacity and needs of local districts to implement Programs of Study
- Conduct professional development and workshops on STEM programs of study
- Support POS planning and implementation
- Conduct Annual Conference on STEM programs of study
- Conduct STEM Administrator Academy



Goal 3: *Develop resource bank for districts and STEM Learning Exchanges*

- Update *Illinois Career Cluster Framework*
- Develop new PTR modules to support districts' curriculum reform activities
- Develop training materials for coaches and consultants
- Develop materials for websites, webinars, and other dissemination channels
- Scan and access evidence-based resources and materials for dissemination



Goal 4: *Support sustainability of STEM education*

- Identify targeted research areas for which external funding may be available
- Explore collaborative partnerships to seek funding
- Create a resource bank of faculty with STEM research interests
- Identify and disseminate funding opportunities for STEM education
- Provide grant-writing support



Selected PRC Products

- PTR curriculum reform modules
- *Illinois Career Cluster Framework* revision
- White paper for high schools and programs of study
- Resource directories
- PRC Website and electronic newsletter
- *OCCRL E-Info* and *Research Spotlights*
- Briefs on critical topics
- Summary report on formative evaluation results for the PRC



Pathways Resource Center

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