

STEM Transitions: Enhancing Mathematics and Science Rigor through Evidence-Based Curriculum Projects

The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) envisions that all students will achieve challenging academic and technical standards and be prepared for high-skill, high-wage, or high-demand occupations in current or emerging professions in the 21st century global economy. To this end, Perkins IV requires states to improve or develop new career and technical education programs of study that include rigorous academic content that prepares students for the workplace and progressively higher levels of education.

The Office of Vocational and Adult Education (OVAE) implemented the STEM Transitions project to assist states in linking academic, career, and technical education at the postsecondary level. OVAE awarded a grant to the League for Innovation in the Community College (League) and the Center for Occupational Research and Development (CORD) to develop instructional materials and curricula for community college faculty that integrate academic and technical mathematics and science skills in six career clusters:

- Health Science
- Information Technology
- Manufacturing
- Transportation, Distribution, and Logistics
- Science, Technology, Engineering, and Mathematics
- Agriculture, Food, and Natural Resources

The League and CORD are using an innovative, online collaboration technology to engage community college faculty and industry representatives across the nation in constructing 62 integrated curriculum projects. The projects will include rubrics for assessment, research-based teaching strategies, and authentic tasks that encourage students to apply academic and technical skills to solve real world problems.

Send In Your Resources!

The STEM Transitions project team is gathering web-based classroom resources for community college faculty. Eight lessons are already available and the list will continue to expand. The project team invites individuals to suggest resources for inclusion in the clearinghouse. Please email the project team at: resources@stemtransitions.org

Working alongside the STEM Transitions team at CORD are 38 community college faculty members who are serving as “conferees” (subject matter experts) for the project. Conferees have participated in several phases of the project including the standards review process, the identification of embedded mathematics and science content in the cluster standards, and the development of classroom-ready integrated projects for use by community college instructors.

Reports and Tools You Can Use

- A Web site with Web-based classroom resources in each of the six career cluster areas.

OVAE Contact Ellen.Holland@ed.gov

Web Site CORD - <http://www.stemtransitions.org>