

## For More Information

*For more information about the Science, Technology, Engineering, & Math (STEM) Youth Apprenticeship program*

### CONTACT:

- *Your local high school YA Coordinator or guidance counselor!*
- *OR to find a local contact for your area, visit the Wisconsin Department of Workforce Development Youth Apprenticeship web site at:*

<http://dwd.wisconsin.gov/youthapprenticeship/>



Dane County YA Bioscience students at the BioPharmaceutical Technology Center Institute (BTCI) in Madison.

DWD is an equal opportunity employer and service provider. If you have a disability and need to access this information in an alternate format, or need it translated to another language, please contact: (608) 266-2134 or (866) 864-4585 (TTY).

This brochure was developed in cooperation with the University of Wisconsin—Oshkosh through a grant from Wisconsin DWD.

### State of Wisconsin Department of Workforce Development

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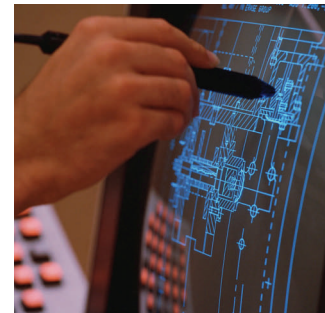
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State of Wisconsin  
Dept. of Workforce Development

## Science, Technology, Engineering, & Math Youth Apprenticeship

Solving  
Wisconsin's STEM  
problems!



# STEM Opportunities



The **Science, Technology, Engineering, & Math (STEM)** cluster provides thousands of career opportunities for learners with an interest in math, science, and problem-solving. Students who pursue one of these careers will be involved in planning, managing, and providing valuable scientific research and technical services. Job possibilities abound, even in economic downturns, as more scientists and engineers are called upon to create solutions for problems ranging from the aeronautical to the zoological.

Growing need for agricultural and medicinal products from biotechnology research will drive scientific demand with employment outlook best for those workers well trained on equipment used in laboratories or production facilities. The outlook in engineering will vary by specialty with biomedical and civil engineers experiencing the most growth.

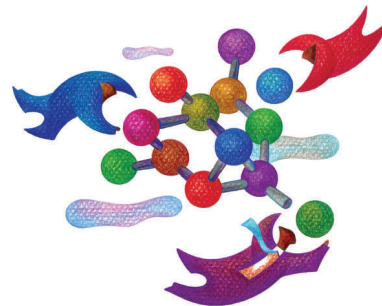
This Youth Apprenticeship occupational area focuses on both pathways within the Science, Technology, Engineering, & Math (STEM) industry: Engineering & Technology and Science & Math. Therefore, the STEM YA program was structured to require **INDUSTRY-WIDE FOUNDATIONAL SKILLS** and **INDUSTRY-SPECIFIC TECHNICAL SKILLS**.

## Where can I work?

STEM occupations offer a variety of potential worksites. Engineering pathway YA students can work for manufacturing facilities, civil engineering departments, architectural firms, or anyplace where design is incorporated into solutions. Science pathway YA students could work in biomedical labs, research labs, food quality labs, or any company that utilizes typical bioscience tests.

## What will I learn?

STEM YA students are required to perform all of the Core Employability and Safety skills at the worksite. In addition, Level One (one year) YA students are to choose additional competencies from the **REQUIRED STEM Unit** in their specific pathway. Level Two (two year) YA students are to complete all of the Level One requirements plus an additional unit within their chosen pathway.



## What are the specific STEM YA Pathway units?

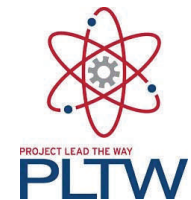
### Engineering & Technology Pathway

- Engineering Drafting Unit- Required First Year
- Mechanical/Electrical Engineering Unit
- Civil Engineering Unit

### Science & Math Pathway

- Bioscience Lab Foundations Unit- Required First Year
- Bioscience Applications Unit

The STEM YA curriculum is aligned with the National States' Career Cluster Standards Knowledge and Skill statements, as well as applicable skills and learning objectives in the Project Lead the Way and STEM Academy curriculum.



the **STEM** academy