



## *Skilled Trades Academy - Highlights*

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### Overview

The Lancaster Manufacturing & Construction Skilled Trades Academy is designed for students who are interested in exploring careers in the Manufacturing & Construction industries. During the three-year curriculum, classes will visit local facilities, host various professionals, and discuss current trends in Manufacturing & Construction.

Students in the Skilled Trades Academy will complete a series of courses designed to offer practical experiences. The focus will be on acquiring both the soft skills as well as technical skills for entry-level employment in the manufacturing and construction fields.

The Manufacturing and Skilled Trades Academy (MSTA) realizes not every student wants to go to college. There are students that want to enter the workforce and begin their careers, or they may still want to go to college but may not be prepared, or can afford, that educational rigor and cost. The MSTA is here to help prepare them for that reality by giving them the rudimentary skills to succeed in both.

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### Skilled Trades Mission

The mission of the Lancaster High School Manufacturing and Skilled Trades Academy is to develop the student's skills and talents to be successful in the manufacturing and/or trades industries while creating active, productive citizens.

To be more specific the MSTA is being created to:

- prepare students for the realities of the "outside" world be it college or the workforce.
- prepare students for the manufacturing and trades jobs of today and tomorrow



## *Skilled Trades - Course Descriptions*

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### Trade Apprentice Tech

*9103 Grade 10*

*½ credit*

A foundation class for the Trades Academy, Apprentice Tech introduces the concepts and terminology of site planning, foundation elements, wall and ceiling structure, roofing styles, through various projects. This class introduces pattern development for sheet metal work; students will then create various projects using industry standard sheet metal tools.

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### Trade Apprentice Survey

*9101 Grade 10*

*½ credit*

A foundation class for the Trades Academy, Apprentice Survey introduces the hands-on skills for a career in trades using power tools, processes, and beginning concepts of manufacturing. Students will create various projects using industry standards. \*\*

*Example 10<sup>th</sup> grade project: students each create individual coat rack*

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### Trade Journeyman Tech

*9104 Grade 11*

*½ credit*

Journeyman Tech explores the manufacturing process used in the creating and development of products, either for commercial or industrial use. These concepts are further developed in the Manufacturing Trades class. The students will also learn about plumbing concepts for both residential and commercial buildings. Projects in both copper and PVC pipe are explored.

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### Trade Journeyman Survey

*9102 Grade 11*

*½ credit*

Journeyman Survey explores the manufacturing process more in depth from design to production. Students further their manufacturing skills integrating the design of products with moving parts. \*\* *Example 11<sup>th</sup> grade project: students each create folding step stool*

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### Print Reading for Trades

*9106 Grade 11*

*½ credit*

Print Reading for Trades is a course that focuses on understanding construction drawings related to architecture and building trades, such as plumbing, electrical, and mechanical (MEP). Students will learn plan symbols, review sets of plans of Lancaster High School, and build scale models. Students will work in teams and be utilizing tools, materials, and resources related to the trades.

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### Manufacturing Trades

*9105 Grade 11*

*½ credit*

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing and puts the students in a position to utilize modern manufacturing processes to create projects. Students will be introduced to technologies such as Injection molding, laser cutting, 3D rapid prototyping, and CNC machining.



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### Trade Senior Project I

*9107 Grade 12*

*½ credit*

In the senior level coursework, the personal management skills needed to gain employment or be successful in college are discussed. Topics include resume building, lifestyle choices and financial management. In addition, the class will design, develop, and build projects to meet a personal or community need.

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### Trade Senior Project II

*9108 Grade 12*

*½ credit*

In the senior level coursework, the personal management skills needed to gain employment or be successful in college are discussed. Topics include resume building, lifestyle choices and financial management. In addition, the class will design, develop, and build projects to meet a personal or community need. Projects are designed around group work and are more complex in design and production.

*\*\* Example 12<sup>th</sup> grade project: Students work together to make an Adirondack Chair*