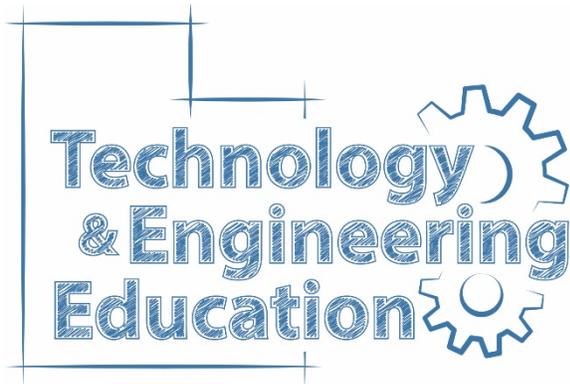


STRANDS AND STANDARDS

CONSTRUCTION TECHNOLOGY



Course Description

An introductory course focused on construction technology. Students will gain an understanding of how construction technologies impacts politics, the environment, society, and economy. Students will develop a foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of construction.

Core Code	38.03.00.00.030
Concurrent Enrollment Core Code	None
Units of Credit	0.5
Intended Grade Level	9
Prerequisite	None
Skill Certification Test Number	None
Test Weight	None
License Type	Secondary Education 6-12
Required Endorsement(s)	Technology & Engineering, or
	Technology

STRAND 1

Students will follow safety practices.

Standard 1

Identify potential safety hazards and follow general laboratory safety practices.

- Assess workplace conditions regarding safety and health.
- Identify potential safety issues and align with relevant safety standards to ensure a safe workplace/jobsite.
- Locate and understand the use of shop safety equipment.
- Select appropriate personal protective equipment.

Standard 2

Use safe work practices.

- Use personal protective equipment according to manufacturer rules and regulations.
- Follow correct procedures when using any hand or power tools.
 - Ref: <https://schools.utah.gov/cte/tech/publicationsresources> under the Safety Program and Management tab.

Standard 3

Complete a basic safety test without errors (100%) before using any tools or shop equipment.

STRAND 2

Students will develop an understanding of and be able to use construction technologies.

Standard 1

In order to select, use, and understand construction technologies, students should learn that:

- The selection of designs for structures is based on factors such as building laws and codes, style, convenience, cost climate, and function.
- Structures are constructed using a variety of processes and procedures.
- Some structures are temporary, while others are permanent.
- Structures rest on a foundation.
- Infrastructure is the underlying base or basic framework of a system.
- Buildings generally contain a variety of subsystems (utilities).
 - Climate control
 - Communications
 - Electrical
 - Waste disposal
 - Water
- The design of a structure includes a number of considerations.
 - Appearance
 - Available utilities
 - Available materials
 - Climate

- Convenience
 - Efficiency
 - Location
 - Longevity
 - Maintenance
 - Safety
 - Strength
- Structures require maintenance, alteration, or renovation periodically to improve or alter their intended use.

STRAND 3

Students will develop an understanding of the cultural, social, economic, and political effects of technology, the effects of technology on the environment, the role of society in the development and use of technology, and the influence of technology on history.

Standard 1

In order to be aware of the history of technology, students should learn that:

- Many inventions and innovations have evolved by using slow and methodical processes of tests and refinements.
- The specialization of function has been at the heart of many technological improvements.
- The design and constructions of structures for service or convenience have evolved from the development of techniques for measurement, controlling systems, and the understanding of special relationships.
- In the past, an invention or innovation was not usually developed with the knowledge of science.

Standard 2

In order to realize the impact of society on technology, students should learn that:

- Throughout history, new technologies have resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
- The use of inventions and innovations has led to changes in society and the creation of new needs and wants.
- Social and cultural priorities and values are reflected in technological devices.
- Meeting societal expectations is the driving force behind the acceptance and use of products and systems.

Standard 3

In order to understand the effects of technology on the environment, students should learn that:

- The management of waste produced by technological systems is an important societal issue.
- Technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.

- Decisions to develop and use technologies often put environmental and economic interests in direct competition with one another

STRAND 4

Students will demonstrate the use of basic measurement principles that incorporate applied math applications related to construction practices.

Standard 1

Demonstrate basic blueprint reading skills.

Standard 2

Practice simple estimating techniques.

Standard 3

Take measurements using basic equipment used in construction such as a tape measure, carpenter's square, plumb bob, and level.

STRAND 5

Students will investigate career opportunities in the construction industry.

Standard 1

Identify occupations related to the construction industry.

Standard 2

Identify different types of occupational training.