STRANDS AND STANDARDS

INDUSTRIAL & AGRICULTURAL TECHNOLOGY

Course Description

An introductory course focused on agricultural technology and related, but more general, technologies. Various aspects of agricultural technology will be explored along with its environmental, societal, political, and economic impacts on our world. Students will develop a foundation in essential abilities and attitudes that will in turn expand their occupational opportunities in the world of agriculture.

Core Code	38.03.00.00.020
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 (CTE/General)
	Agriculture (CTE/General)
	Technology

ADA Compliant: July 2018

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 select and use agricultural and related technologies.

Standard 1

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

- Agriculture includes a combination of businesses that use a wide array of products and systems to produce, process, and distribute food, fiber, fuel, chemical, and other useful products.
- Biotechnology has applications in such areas as agriculture, pharmaceuticals, food and beverages, medicine, energy, the environment, and genetic engineering.
- Conservation is the process of controlling soil erosion, reducing sediment in waterways, conserving water, and improving water quality.
- The design and management of agricultural systems require knowledge of artificial ecosystems and the effects of technological development of flora and fauna.

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 recognize the changes in society caused by the use of technology, students should learn that:

- The use of technology affects humans in various ways, including their safety, comfort, choices, and attitudes about technologies development and use.
- Technology, by itself, is neither good nor bad, but decisions about the use of products and systems can result in desirable or undesirable consequences.
- The development and use of technology poses ethical issues.
- Economic, political, and cultural issues are influenced by the development and use of technology.

Standard 2

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.

Standard 3

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 4

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.

STRAND 4

Students will investigate career opportunities in agriculture.

Standard 1

Identify occupations related to agriculture.

Standard 2

Identify different types of occupational training.