

## **INDUSTRIAL TECHNOLOGY EDUCATION**

**COURSE DESCRIPTION:** The International Technology and Engineering Educators Association's identified standards for technology literacy provide students the essential core of technological knowledge and skills to become technology-literate citizens. Standards are organized into five categories: The Nature of Technology, Technology and Society, Design, Abilities for a Technological World, and The Designed World and are presented in grade bands. [http://www.iteea.org/TAA/Publications/TAA\\_Publications.html](http://www.iteea.org/TAA/Publications/TAA_Publications.html)

### **COURSE/ACTIVITY CODES:**

Industrial Technology Education, Course Code 2840, middle school only (7th and 8th grade)  
Industrial Technology Education (Exploratory) 1, Course Code 6040  
Industrial Technology Education (Exploratory) 2, Course Code 6041

### **RECOMMENDED GRADE LEVELS:**

Industrial Technology Education, Grades 7-8  
Industrial Technology Education (Exploratory) 1, Grades 9-10  
Industrial Technology Education (Exploratory) 2, Grades 11-12

### **COURSE CREDIT:**

Industrial Technology Education (Exploratory) 1, 1 Carnegie unit  
Industrial Technology Education (Exploratory) 2, 1 Carnegie unit

### **UNIT A. THE NATURE OF TECHNOLOGY**

The student will be able to:

1. Develop an understanding of the characteristics and scope of technology.
2. Develop an understanding of the core concepts of technology.
3. Develop an understanding of the relationships among technologies and the connections between technology and other fields of study.

### **UNIT B. TECHNOLOGY AND SOCIETY**

The student will be able to:

1. Develop an understanding of the cultural, social, economic, and political effects of technology.
2. Develop an understanding of the effects of technology on the environment.
3. Develop an understanding of the role of society in the development and use of technology.
4. Develop an understanding of the influence of technology on history.

## **UNIT C. DESIGN**

The student will be able to:

1. Develop an understanding of the attributes of design.
2. Develop an understanding of engineering design.
3. Develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

## **UNIT D. ABILITIES FOR A TECHNOLOGICAL WORLD**

The student will be able to:

1. Develop the abilities to apply the design process.
2. Develop the abilities to use and maintain technological products and systems.
3. Develop the abilities to assess the impact of products and systems.

## **UNIT E. THE DESIGNED WORLD**

The student will be able to:

1. Develop an understanding of and be able to select and use medical technologies.
2. Develop an understanding of and be able to select and use agricultural and related biotechnologies.
3. Develop an understanding of and be able to select and use energy and power technologies.
4. Develop an understanding of and be able to select and use information and communication technologies.
5. Develop an understanding of and be able to select and use transportation technologies.
6. Develop an understanding of and be able to select and use manufacturing technologies.
7. Develop an understanding of and be able to select and use construction technologies.