

**Greensburg Community School Corporation**

**Jr. High School Curriculum**

**7<sup>th</sup> & 8<sup>th</sup>**  
Grade

**Industrial Technology**

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# **Greensburg Community Schools**

**Jr. High School**

**Industrial Technology**

## **Mission Statement**

The mission of the Greensburg Community Schools is to serve individuals and the community by developing in all students the knowledge, understanding, skills and attitudes that will enable them to lead productive and fulfilling lives in our complex and changing society.

VISION STATEMENT  
GREENSBURG JUNIOR HIGH WILL PROVIDE  
A SAFE LEARNING ENVIRONMENT WHICH PRODUCES  
COMPETENT, SUCCESSFUL CITIZENS.

**Greensburg Community Schools**  
**Jr. High School      Industrial Technology**

**Narrative Description**

Each student is provided an introduction to communication, physical and bio-related technology systems' in an integrated, experience-based instructional program designed to prepare them to become knowledgeable about technology- its evolution, system, techniques, utilization and social and cultural significance. This process is embodied through the application of math and science concepts in technology systems. Students discover, create, solve problems and construct by using a variety of resources, machines, materials, processes, and computer systems. The 'systems' approach is designed to enable students to apply and create technology.

**Course Objectives**

A. The students will be able to engage in

1. Develop an understanding of the central role of technology in the development of society and a globally integrated economic system.
2. Solve technological problems using a system model approach, higher thinking skills, individual and collaborative ingenuity, and a variety of resources including information, tools/machines, people, capital, energy, time and materials.
3. Safely, effectively and creatively use tools and materials to perform technological processes.
4. Demonstrate an understanding of values in making ethical decisions about the use and development of technology focusing on the environment, economics, political, and social impacts.
5. Apply knowledge, creativity and resources to solve context problems in the application of communication, construction, biotechnology, energy and power, transportation and manufacturing.
6. Apply appropriate knowledge in the areas of science, math, social studies, and language arts to solve relevant, real world problems.
7. Demonstrate knowledge and understanding of historical, current, and futuristic relationship of technological achievements on the environment society, and economic.
8. Understand the career applicability of technology      knowledge and skills, and technological career opportunities on personal interest, and abilities.

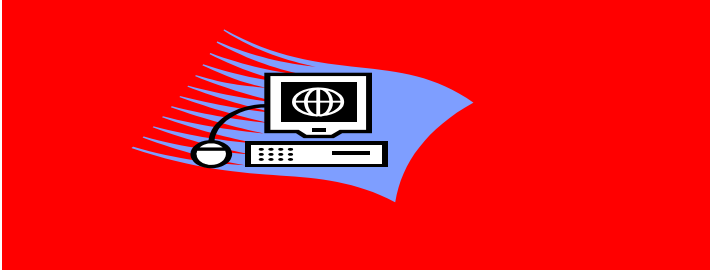
**Greensburg Community School Corporation  
Jr.High School    Industrial Arts Technology**

**Units of Study**

	SECTIONS / CONCEPTS	LENGTH OF TIME
1	Introduction Unit	8 Days
2	Road Transportation	10 Days
3.	Aerospace	10 Days
4	Aerodynamic Principles	10 DAY
5	Mechanisms	10 Days
6	Power & Energy	10 Days
7	Pneumatics	10 Days
8	Engineering Structures	10 Days
9	Construction & Cad	10 Days
10	Manufacturing & Automation	10 Days
11	CNC Mill (Computer Numerical Control)	10 Days
12	Robotics	10 Days
13	Communications	10 Days
14	Laser & Fiber Optics	10 Days
15	Graphic Design	10 Days
16	Video Productions	10 Day

**The students will rotate in groups of two to different modules at the end of the 10 days.**

**General Technology Concepts/ Indiana Technology Educational Standards**



1. Describe technology as a system with in puts, processes, outputs, impacts, and feedback.
2. Understand technology as a global system to improve, manage, and control the natural and human made environment.
3. Describe technology as it is applied in the context of communication, construction, manufacturing, transportation, and related technologies.
4. Work cooperatively and productively in groups to design and use technology to solve technological problems.
5. Identify societal and personal needs and opportunities that can be addressed through technology.
6. Develop and refine alternate solutions that address technological needs and opportunities.
7. Evaluate and select appropriate solutions that address technological needs and opportunities.

**Designing/Producing Technology**

8. Specify solutions to stated needs and opportunities using appropriate technical means.

	Introduction Unit	Aerodynamics	Aerospace	CAM/CNC	Communications	Construction/Cad	Engineer Structures	Graphic Design	Laser/Fiber Optic	Manufacturing & Automation	Mechanism
1. Describe technology as a system with in puts, processes, outputs, impacts, and feedback.	X	X	X		X	X	X	X	X	X	X
2. Understand technology as a global system to improve, manage, and control the natural and human made environment.	X	X	X	X	X	X	X	X	X	X	X
3. Describe technology as it is applied in the context of communication, construction, manufacturing, transportation, and related technologies.	X	X	X	X	X	X	X	X	X	X	X
4. Work cooperatively and productively in groups to design and use technology to solve technological problems.		X	X	X	X	X	X	X	X	X	X
5. Identify societal and personal needs and opportunities that can be addressed through technology.		X	X	X	X	X	X	X	X	X	X
6. Develop and refine alternate solutions that address technological needs and opportunities.		X	X	X	X	X	X	X	X	X	X
7. Evaluate and select appropriate solutions that address technological needs and opportunities.		X	X	X	X	X	X	X	X	X	X
<b>Designing/Producing Technology</b>											
8. Specify solutions to stated needs and opportunities using appropriate technical means.	X	X	X	X	X	X	X	X	X	X	X

9. Select the appropriate processes resources needed to produce and operate communication, construction, manufacturing, transportation, and other technological systems and artifacts.

X X X X X X X X X X

10. Select the appropriate processes needed to produce or operate products, structures, and systems.

X X X X X X X X X X

**Using/Assessing Technology**

11. Efficiently use appropriate processes to produce communication, construction, manufacturing, transportation, and related devices and systems.

X X X X X X X X X X

12. Select the appropriate devices and systems to meet personal and societal needs.

X X X X X X X X X X

13. Appropriately operate technological devices and systems.

X X X X X X X X X X

14. Recognize the need for servicing and repairing technological devices and systems.

X

15. Properly dispose or recondition worn out and obsolete technological devices.

16. Determine the impact of technological actions on people, society, and the environment.

X X X X X X X X X X

17. Describe the relationships among entrepreneurship, business enterprises, and technology.

### **Learner Activities:**

Students will be introduced to their first module, the Introduction Unit (7th Grade Only) Specifically, students will become familiar with activities that are typically done in every module. For example, they will select their unit of study (Module) Log on and create a new team, use their paper Student Journal view the activity's take a pre-test and begin working. Students will also produce time lines and current events as well as take a post test at the end of the activities. There are 16 different modules.

### **Technology Infusion:**

The students will be using Techcenter 21 textbook and they will follow the directions in the textbook.

Typical 10- day class module.

- Activity 1-           Pre-test  
                          Current event assignment  
                          Introduction (Multimedia Presentation)
- Activity 2-  
                          System Simulation
- Activity 3-  
                          Specific technology activity for the module
- Activity 4-  
                          Specific technology activity for the module.
- Activity 5-  
                          Specific technology activity for the module.
- Activity 6-  
                          Specific technology activity for the module.
- Activity 7-  
                          Current Event Report Due
- Activity 8-  
                          Technology Time line Due
- Activity 9-  
                          Careers & Module Review
- Activity 10-

Post-Test/ Assessment forms  
Inventory Check  
Close-out

**Evaluation:**

A post test will be given at the end of each unit you were working on. This test will be graded by your computer and transferred to the teacher's computer. This is a team test. You can view your progress grade at the of each session.



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