

DATES	DESCRIPTION	DAILY OBJECTIVES
8/14-21	Student Orientation	<ol style="list-style-type: none"> 1. Greet students(All About Me) 2. Break the Ice 3. Class Procedures(Trivia Games) 4. Safety Procedures(Trivia Games) 5. Resume` Game <p>Paperwork</p>
8/21-25	Intro to Manufacturing Soft Skills	<ol style="list-style-type: none"> 1. Daily Bell Ringer- The Oz Principle 2. Communication- Games, Product Identification, Bad Movie Synopsis 3. Identify Parts of a Resume` 4. Construct Resume 5. Describe how to fill out an online application 6. Teamwork- Cup towers, Note card structures, <p>Introduce Amatrol Laps and eLearning</p>
8/28-9/1	Industry 4.0 Introduction to Mechatronics	<p>Daily Bell Ringer- The Oz Principle Introduction to Advanced Manufacturing Objective 1 - Define Manufacturing and Identify Types of Manufactured Products Objective 2 - Define Advanced Manufacturing and Identify Three Examples Objective 3 - Describe the Role of Product Design in Advanced Manufacturing</p>
9/4-9/8	Industry 4.0 Technology and Manufacturing	<p>9/4 - Labor Day (No School) Daily Bell Ringer- The Oz Principle Objective 1 - Describe the Impact of Computers on Advanced Manufacturing Objective 2 - Describe the Benefits of Factory Automation Objective 3 - Describe the Function of a CNC Machine Objective 4 - Identify Two Types of Robots Objective 5 - Describe the Function of a PLC Objective 6 - Explain the Use of Software in Advanced Manufacturing Objective 7 - Describe the Use of New Technologies in Advanced Manufacturing</p>

9/11-9/15	Industrial Internet of Things	<p>Daily Bell Ringer- The Oz Principle</p> <p>Objective 1 - Define Industry 4.0 and Explain Its Benefits</p> <p>Objective 2 - Define the Industrial Internet of Things (IIoT) and Its Benefits</p> <p>Objective 3 - Describe the History of IIoT</p> <p>Objective 4 - Describe the Components of Industrial Internet of Things (IIoT)</p> <p>Objective 5 - Describe Industry Sector Applications of IIoT</p> <p>Objective 6 - Describe Manufacturing Applications of Industrial Internet of Things (IIoT)</p> <p>Objective 7 - Describe Manufacturing Logistics Applications of Industrial Internet of Things (IIoT)</p> <p>Self Review 1</p>
9/18-9/22	Safety Responsibility	<p>Daily Bell Ringer- The Oz Principle</p> <p>Objective 1 - Define Workplace Health and Safety and Explain Its Importance</p> <p>Objective 2 - Describe the Importance of Safety Policies</p> <p>Objective 3 - Describe the Results of Unsafe Behavior</p> <p>Objective 4 - Describe the Purpose of the Occupational Safety and Health Administration</p> <p>Objective 5 - Describe the Purpose of the Environmental Protection Agency</p> <p>Objective 6 - Describe the Purpose of NIOSH, EPCRA, and State Safety Agencies</p> <p>Objective 7 - Describe the Safety Responsibilities within a Company</p> <p>Objective 8 - Describe How to Locate Safety Regulations and Policies</p>
9/25-9/29	Hand Tools 1	<p>Daily Bell Ringer- The Oz Principle</p> <p>Objective 1 - Describe Basic Types of Fasteners</p> <p>Objective 2 - Describe How Parts Are Assembled Using Threaded Fasteners</p> <p>Objective 3 - Describe How to Use a Combination Wrench</p> <p>Objective 4 - Describe How to Use a Socket Wrench</p> <p>Objective 5 - Describe How to Use a Backup Wrench</p> <p>Objective 6 - Describe How to Use a Hex Key Wrench</p> <p>Objective 7 - Describe How to Use a Straight-Slotted Screwdriver</p> <p>Objective 8 - Describe How to Use a Phillips Head Screwdriver</p>

		<p>Objective 6 - Describe How to Dimension Angular Features Objective 7 - Describe Guidelines for Dimensioning Multiview Drawings</p> <p>10/20 - PD Day (No Students)</p>
10/23-10/27	Tolerancing	<p>Daily Bell Ringer- The Oz Principle Objective 1 - Define a Tolerance and Explain Its Importance Objective 2 - Describe How to Interpret a Conventional Tolerance on a Print Objective 3 - Describe How to Interpret a Tolerance Note Objective 4 - Define Baseline Dimensioning and Give an Advantage Objective 5 - Define Maximum and Minimum Material Conditions Objective 6 - Define Clearance and Allowance Objective 7 - Define Three Types of Fits Objective 8 - Define Geometric Dimensioning and Tolerancing Objective 9 - Define Five Types of Geometric Features Objective 10 - Define a Datum and a Datum Feature and Explain Their Importance Objective 11 - Describe a Feature Control Frame</p>
10/30-11/3	Manufacturing Drawings and Scales	<p>Objective 1 - Describe Common Drawing Sizes Objective 2 - Describe How to Interpret a Drawing Scale Objective 3 - Describe the Types of Information on an Engineering Drawing Objective 4 - Describe How to Interpret Print Notes Objective 5 - Describe How to Interpret a Title Block Objective 6 - Describe How to Interpret a Change Block Objective 7 - Describe How to Interpret a Materials Block Objective 8 - Describe How to Interpret a Tolerance Block Objective 9 - Describe How to Interpret a Surface Finish Symbol Objective 10 - Describe How to Interpret a Process Drawing Objective 11 - Describe How to Interpret an Assembly Drawing</p>
11/6-11/10	Calipers	<p>Objective 1 - Describe the Function of a Precision Measurement Tool Objective 2 - Describe the Basic Operation of a Dial Caliper Objective 3 - Describe How to Calibrate a Dial Caliper Objective 4 - Describe How to Use a Dial Caliper Objective 5 - State the Typical Accuracy of a Dial Caliper Measurement and Explain What Affects It Skill 1 - Perform Measurements Using a Dial Caliper Objective 6 - Describe the Basic Operation of a Digital Caliper Objective 7 - Describe How to Use a Digital Caliper Skill 2 - Perform Measurements Using a Digital Caliper</p>

11/13-11/17	Micrometer Measurement	<p>Objective 1 - Describe the Basic Operation of a Micrometer</p> <p>Objective 2 - Describe How to Read a Micrometer with SI Units</p> <p>Objective 3 - Describe How to Test Micrometer Calibration</p> <p>Objective 4 - Describe How to Use an Outside Micrometer with SI Units</p> <p>Skill 1 - Perform Measurements Using an Outside Micrometer</p> <p>Objective 5 - Describe How to Use an Inside Micrometer</p> <p>Objective 6 - Explain a Micrometer's Accuracy</p>
11/20-11/24		Thanksgiving Break
11/27-12/1	Mechanical Power	<p>Objective 1 - Define Force and Give Its Units of Measurement</p> <p>Objective 2 - Define Weight and Give Its Units of Measurement</p> <p>Objective 3 - Define Mass and Give Its Units of Measurement</p> <p>Objective 4 - Define Work and Give Its Units of Measurement</p> <p>Objective 5 - Define Mechanical Power and Give Its Units of Measurement</p> <p>Objective 6 - Describe Two Types of Stored Mechanical Energy</p> <p>Objective 7 - Describe Hooke's Law and Explain Its Importance</p> <p>Skill 1 - Use a Spring Scale to Measure Forces and Weights</p>
12/4-12/8	Mechanical Power Transmission	<p>Objective 1 - Describe the Function of a Mechanical Power Transmission System</p> <p>Objective 2 - Describe Methods of Coupling a Mechanical Power Transmission</p> <p>Objective 3 - Describe Methods of Parallel Shaft Mechanical Power Transmission</p> <p>Objective 4 - Describe the Basic Operation of a Bearing</p> <p>Objective 5 - Describe How to Install and Adjust a Pillow Block Bearing</p> <p>Objective 6 - Describe Two Methods of Mounting a Shaft Bearing and Give an Application of Each</p> <p>Objective 7 - Describe the Basic Operation of a Shaft Coupling</p>

12/11-12/15	Gear Drives	Objective 1 - Describe the Basic Operation of a Gear Drive Objective 2 - Describe How to Calculate Gear Ratio Objective 3 - Describe How to Calculate Gear Drive Speed Objective 4 - Describe How to Calculate Gear Drive Torque Objective 5 - Describe How to Install a Gearbox Skill 1 - Measure the Mechanical Advantage of a Gear Drive
12/18-1/1/24		Winter Break
1/2-1/5		1/2 - PD Day (No Students)
1/8-1/12		
1/15-1/19		1/15 - MLK Day (No School)
1/22-1/26		
1/29-2/2		

2/5-2/9		
2/12-2/16		
2/19-2/23		2/19 - Presidents' Day (No School)
2/26-3/4		
3/11-3/15		
3/18-3/22		Spring Break
3/25-3/29		
4/1-4/5		

4/8-4/12		
4/15-4/19		4/15 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR 4/16 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR 4/17 - SkillsUSA Arkansas Leadership Conference Hot Springs, AR
4/22-4/26		
4/29-5/3		
5/6-5/10		
5/13-5/17		
5/20-5/24		

5/27-5/31		5/27 - Memorial Day (No Students)
-----------	--	-----------------------------------