

DATES	DESCRIPTION	DAILY OBJECTIVES
8/14-21	Settling in, Becoming familiar with the Engineering process, and the shop Environment.	Get acquainted, shop orientation, meet your classmates, discuss objectives and Understand the expectations.
8/21-25	Working Safely in Industrial Environments	Get computer logins, set up Fusion 360 accounts, Enroll in the Online Curriculum, Complete the Safety Modules
8/28-9/1	Intro. To Industrial drawings and Blueprints.	Learning how to do a basic sketch, how to interpret a drawing, understanding view, lines, etc. Using a pencil and protractor, using software to create a drawing.
9/4-9/8	Hand Tools, Identification, Use, and Care	9/4 - Labor Day (No School) Using tools properly, care and maintenance, Identification
9/11-9/15	Introduction to Solid Modeling	Fusion 360 introduction, MasterCam Introduction, your first Fusion 360 Model
9/18-9/122	Job planning and Layout	Using layout tools, punches, scribes, and machinist squares and height indicator
9/25-9/29	Soft Skills week	Job Interviews, resumes' Work Ethics and Career Planning

10/2-10/6	Intro to CNC Machining	Mills and Lathes, understanding the difference, Basic G Codes and M Codes Your first CNC Program
10/9-10/13	Cutting Tools and conditions, Feeds and Speeds, Basic Metallurgy	Applying the right tool fo the right job, how to get the most out of your tools, materials and time in the machining world. Basic Material identification
10/16-10/20	Casting Technology, Mold Making, pattern building	This is the week we will make design and manufacture chocolate bar molds 10/20 - PD Day (No Students)
10/23-10/27	Casting Continued	Chocolate bar manufacturing
10/30-11/3	Intro to Manual Lathe	Getting comfortable with manual turning, four jaw chuck work, your first lathe part. Care and maintenance of a lathe.
11/6-11/10	Manual Lathe	Lathe operations, continued

11/13-11/17	Manual Lathe vs CNC Lathe	Contrasting and comparing the differences in turning
11/20-11/24		Thanksgiving Break
11/27-12/1	Intro to Manual Milling	Getting comfortable with a Manual mill, vise indication, machine care and maintenance, running your first mill part.
12/4-12/8	Milling Continued	First parts, continued
12/11-12/15	Manual Milling vs CNC Milling	Contrast and compare the difference in CNC vs Manual Milling
12/18-1/1/24		Winter Break
1/2-1/5	Welcome Back, Design and Molding	1/2 - PD Day (No Students) Safety Refresher, Class norms and expectations, Final design and printing of Chocolate molds
1/8-1/12	Design, Molding, Quality Inspection Process	Casting, Molding, Final processes and engineering changes of the chocolate bar projects

1/15-1/19	Precision Measurement and Metrology	1/15 - MLK Day (No School) Using Gages and Measuring Instruments to understand Quality Assurance
1/22-1/26	Geometric Dimensioning and Tolerancing	Understanding GD&T language and symbols and how to apply it to manufacturing
1/29-2/2	Multi-Axis CNC Introduction	How to approach Multi-Axis work in the planning process
2/5-2/9	Multi-Axis CNC Setup	Installing a Five Axis trunnion on a CNC Machining Center. Trimming and homing and setting parameters for operation.
2/12-2/16	Multi-Axis CNC Programming Introduction	Learning how to program multi-axis parts, and the different methods and softwares that are available.
2/19-2/23	Multi-Axis Machining, continued	2/19 - Presidents' Day (No School) Cutting multi-axis parts on a machining center and a lathe
2/26-3/4	Multi-Axis Machining, continued	Cutting multi-axis parts on a machining center and a lathe

3/11-3/15	Multi-Axis Machining, continued	Cutting multi-axis parts on a machining center and a lathe
3/18-3/22		Spring Break
3/25-3/29	Skills USA Practice, continued machining	Lathe and Mill work
4/1-4/5	Skills USA Practice, continued machining	Lathe and Mill work
4/8-4/12	Skills USA Practice, continued machining	Lathe and Mill work
4/15-4/19	SKILLS WEEK	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	Starting your own manufacturing business.	The pros and cons of business ownership. What to expect and how to make it work.

4/29-5/3	Job Interview practice, resume' refreshers, and careers in manufacturing	What can I do with my skills, where can I work, and how can I get hired? How to make good decisions and get on the path to success.
5/6-5/10	Introduction to forging, and metallurgy	Forging safety, tools, and processes. How your great grandfather did it.
5/13-5/17	Forging, and Blacksmithing	Working on your own projects
5/20-5/24	Forging and Blacksmithing Inventory, Shop Clean up, and machine maintenance	Working on your own projects
5/27-5/31	Inventory, Shop Clean up, and machine maintenance	Inventory, Shop Clean up, and machine maintenance