



# Reynolds High School



## Metals Manufacturing 1

Instructor Name- Daniel Hellwarth

Phone with ext. -

Room Number- 125 & 126

Email Address- Dhellwarth@rsd7.net

Required Textbooks/Materials: None

Metals Manufacturing 1 continues developing the skills covered in Exploring Metals, while also exposing students to advanced topics in machining, CNC machining, welding, and foundry work. In this year long course, students will be regularly required to complete exercises in the shop and in the classroom in order to be prepared for increasingly complex mastery assignments.

### Course Requirements –

-Passing grade and firm understanding of concepts covered in exploring metals manufacturing

### Grading Policy Description –

Metals 1 demands more of students in the shop, the classroom, and outside of class. This fast-paced course will challenge students to use their time effectively, so that they may be prepared for each element of complex manufacturing processes. Like Exploring Metals, Metals 1 places emphasis on the completion of mastery assignments for understanding of content and credit in the course.

### Letter Grade Description & Percentage Breakdown

Grade Percentage	Letter Grade	Description
100% - 90%	<b>A</b>	Work submitted demonstrates that the student not only completely understands concepts covered, but has also <u>made efforts to go beyond what is required by the assignment.</u>
89% - 80%	<b>B</b>	Work submitted demonstrates complete understanding of concepts within assignment.
79% - 70%	<b>C</b>	Work submitted demonstrates partial understanding of concepts covered by the assignment, or is incomplete.
69% - 60%	<b>D</b>	Next to no efforts have been made to understand concept / execute assignment correctly.
59% - 0%	<b>F</b>	-No effort is made to complete assignment <b>-Mastery assignments can be failed through gross negligence of safety / professionalism expectations</b>

**Late Work/Retake Policy** – As the vast majority of major assignments in this course make use of our facilities, it is critical that students use their time in the shop effectively on a regular basis. Time after school is regularly available for students to catch up, if necessary.

## Course Schedule/Outline of Units

Dates	Topics
September	Intro to manual machining -Lathe intro project -Vertical mill intro project
October	Manual machining continued -Shop Geometry -Intro to CAD
November	Metallurgy -Forging intro project
December	Semester 1 final project
January	Semester 1 final project continued & evaluated
February	Advanced topics in welding & fabrication
March	Intro to semester 2 final project -CAD continued -Printreading
April	-CNC machining -Advanced machining
May	Demonstrations & final project work time
June	Final project evaluation

## Class Expectations (classroom rules, procedures, POWER, etc.)

-Students will be trained to carry themselves safely and professionally in a manufacturing environment. Continued failure to do so will result in severely limited access to the shop and may compromise receiving credit for the course.

Student Signature\_\_\_\_\_

Date\_\_\_\_\_

Parent Signature\_\_\_\_\_

Date\_\_\_\_\_