



# Reynolds High School



## Exploring Metals Manufacturing

Instructor Name- Daniel Hellwarth

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Room Number- 125 &126

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Required Textbooks/Materials: None

Exploring Metals Manufacturing exposes students to the fundamental skills and safety procedures involved in producing simple parts through fabrication, welding, and machining.

### Course Requirements –

A priority of this course is to develop a professional mindset for a manufacturing setting. Being on time to the shop, and maintaining focus is essential to being safe and successful in Exploring Metals Manufacturing.

### Grading Policy Description –

A series of simple projects and technical exercises make up the mastery grades in Exploring Metals Manufacturing. Regular classwork, homework, and exercises in the shop prepare students for mastery assignments. Mastery assignments are graded on criteria including, but not limited to, technical proficiency, understanding of essential concepts, and professionalism. For credit mastery assignments must be complete with a passing grade.

### 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	Topic
September	Introduction to the shop, safety, material processing
October	Measurement, layout, basic fabrication
November	Layout continued, sheet metal fabrication
December	Welding theory, SMAW welding
January	Intro to machining, metrology, manual lathe operation
February	
March	
April	
May	
June	

**Class Expectations**

-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 \_\_\_\_\_