

# *Course Outline: Metalwork 8*

## *Course Objective*

*The main objective of this course is to provide students with a combination of practical skills and theoretical knowledge that are valuable for lifelong learning and future career opportunities. The course emphasizes safety, measurement, theory, tools and equipment, and materials and processes, with a focus on the fabrication of metal-related products. Students will apply their skills through teacher- and student-selected projects, integrating design and hands-on fabrication.*

*By the end of this course, students will be able to:*

- Safely operate a variety of machines and tools relevant to their projects.*
- Accurately measure using both the Metric and Imperial systems.*
- Sketch, plan, and produce full project drawings as required.*
- Identify different metal types based on shape, thickness, and material properties.*
- Develop self-confidence and practical experience in an industrial-style work environment.*

## *Course Content*

*The Metalwork 8 course will cover the following key areas:*

- a. Safety Practices – Proper procedures and precautions in the workshop.*
- b. Classifying Metals – Identification and properties of different metals.*
- c. Understanding Drawings – Reading and interpreting project plans.*
- d. Measurement and Layout – Accurate measurement techniques and marking out work.*
- e. Hand Tools and Machines – Correct use of hand tools and machinery for metal fabrication.*

## *Course Costs*

- *In accordance with Surrey School District policy, there is no course fee for Metalwork 8. Students will be provided with basic materials and supplies necessary to meet the Ministry's Prescribed Learning Outcomes.*
- *Note: These materials are basic in nature. Students wishing to enhance their learning or explore alternative materials for their projects may choose to purchase additional supplies at their own expense.*

## ***Skill Building Projects***

*This course is designed to provide students with practical skills and hands-on experience in metalworking. The activities and projects help students familiarize themselves with metal shop machines, tools, and processes, emphasizing safe and effective work practices.*

*Students are expected to demonstrate safe use of the following machines:*

- *Buffer*
- *Sandblaster*
- *Drill press*
- *Sheet metal machines*

*Students will also gain proficiency with a variety of metalworking hand tools.*

## ***Proposed Projects for the 7-Week Course***

1. *Copper Ring Set – bare, textured, and patina finishes*
2. *Bracelet Set – copper, aluminum, and brass*
3. *Aluminum Medallion – Aboriginal design*
4. *Stainless Steel Ankle Bracelet – Byzantine style*
5. *Pewter Keychain*
6. *Brass Medallion*
7. *Galvanized Steel Shelf – design, measure, cut, assemble, and finish*

## ***Evaluation***

*Students will be evaluated and graded using the following breakdown:*

## *A. Diagnostic Assessment*

- 1. Prior Knowledge Test – Assesses what students already know and can do, providing the teacher with baseline information for instruction.*
- 2. Safety Test – Students must achieve a minimum score of 95% to begin working on their projects.*
- 3. Self-Assessment Test – Enables students to identify their own skill gaps, revise their work, and monitor their progress throughout the course.*

## *B. Formative Assessment – 30 Points*

- 1. Theory Work / Class Activities – Completion and understanding of in-class assignments, exercises, and discussions.*
- 2. Employable Skills – Evaluation of shop conduct, adherence to safety procedures, time management, and cleanliness of work area.*

## *C. Summative assessment – 70 points*

- 1. Practical Work (Projects) – each project is worth 10 points.*

*Important note: Points will be deducted for missing a deadline.*

# *Shop Rules and Expectations*

## *Food and Drinks*

- No food or drinks are allowed in the shop.*
- Water in a bottle is permitted.*

## *Absences*

- Attendance is essential for demonstrations, discussions, and skill practice.*
- Frequent or unexcused absences may negatively affect your grade or result in failure.*

### *Shop Clean-up*

- *All students are expected to participate fully in daily clean-up tasks.*
- *Failure to contribute may result in the loss of project-building privileges.*

### *Projects*

- *Any personal or extra projects must receive teacher approval before starting, and all associated costs must be covered in advance.*
- *Modifications or additions to prescribed course projects that increase costs must also be approved and paid for beforehand.*

### *Personal Electronics*

- *Personal electronics with video displays may only be used with permission.*
- *Use for schoolwork is allowed; gaming is strictly prohibited.*
- *Devices brought to class may be confiscated if rules are not followed.*
- *Music players are permitted only within shop rules.*

### *Vandalism*

- *Vandalism to tools, tables, or floors is strictly prohibited.*
- *Offenses will result in a phone call home and a referral to the office.*

### *Contact Information*

- *Teacher: Mr. SIRIAN*
- *District Email: [sirian\\_c@surreyschools.ca](mailto:sirian_c@surreyschools.ca)*