

Course Outline

Metalwork 8

OBJECTIVE

The main objective of this course is to offer a combination of knowledge and “hands-on” skills that will prove valuable over a lifetime as well as opening doors to a variety of career options. The focus areas will include a blending of safety, measurement, theory, tools and equipment, and materials and processes emphasizing the fabrication of metal-related products. Students will apply the acquired skills in the design and fabrication of teacher/student selected projects. At the end of this course, students will:

- Safely use a variety of machines and tools specific to her/his project*
- Accurate measure in both the Metric and Imperial measuring systems*
- Sketch, plan, and draw a full set of project plans as needed*
- Calculate material costs using a Bill of Materials*
- Identify a variety of metal types by looking at shape, thickness, and material type*
- Gain self-confidence and experience working in an industrial setting*

COURSE CONTENT

a. Safety practices

d. Measurement

b. Classifying metals

e. Hand tools and machines

COURSE COSTS

As per the policy laid out by the Surrey School District, there is no course fee charged for this course. Students will be provided with basic materials and supplies to meet the Ministry’s Prescribed Learning Outcomes. It must be emphasized that these materials are basic in nature. Students who wish to enhance their learning may opt to purchase additional or alternate materials for their projects.

SKILL BUILDING PROJECTS

*This course should be seen as a source of skills, and an experience in general. The activities and the projects are designed to give students an opportunity to familiarize themselves with the metal shop machines, tools and processes. Students are expected to demonstrate the safe use of the following machines: buffer, sand blaster, drill press, sheet metal machines. Students will also be able to use a variety of metalworking hand tools. This semester's skill building projects will be: *we may or may not get to all of these projects.*

*Project 1 – **Metal Logo Design***

*Project 2 – **Copper Ring Set***

*Project 3– **Pencil Case***

*Project 4– **Stainless steel** ankle bracelet*

EVALUATION

Students will be evaluated and graded using the following breakdown:

A. Diagnostic assessment

- 1. Prior knowledge test - provides the teacher with information about what students already know and can do.*
- 2. Safety tests - the students must score at least 95% to pass and to begin working on their projects*
- 3. Self-assessment test – through this, students can identify their own skill gaps, revise their work, and track their own progress.*

B. Formative assessment

- 1. Theory Work (Class Activities)*
- 2. Employable Skills (Shop conduct, safety habits, time on task, clean up habits)*

C. Summative assessment

- 1. Practical Work (Projects)*

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

Shop Rules and Expectations

Food and Drinks

- *No food or drinks in the shops, but water in a bottle is allowed.*

Absences

- *Attendance for demonstrations, discussions, and performing your skills is essential on a course like this. Absences can contribute to a failure of the course.*

Shop Clean-up

- *Everyone is expected to fully participate in the daily clean-up tasks. Anyone who fails to do his or her share may lose their project building privileges.*

Projects

- *Any personal extra projects worked on in the shops must have my approval before beginning, and all costs associated with those projects paid for beforehand. Any modifications or additions to the prescribed course projects that increase the cost must also be approved and paid for beforehand.*

Personal Electronics

- *Personal electronics with video displays can only be used if permission is allowed. Using these electronics for schoolwork is fine, but game playing will not be tolerated. If you choose to bring a device to class, it may be taken away. Music players can be used, but only within the shop rules.*

Vandalism

- *Will not be permitted to any tools, tables, or floor. It will NOT be tolerated and met with a phone call home and a referral to the office.*

Contact

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