**Semester(s) offered:   Fall    2018**

**Berrien Springs Parent Partnership**

**Independent Study/Project Based Learning Course Description and Syllabus**

**Course Title: Blacksmithing I**

**Ages/Grade Levels: Ages 11 yrs and up.**

**Class size: Min: 2 per meeting Max: 4 per meeting**

**Location Name: Guimond Metal Art Studio**

**Location Address: 04160 County Road 689**

 **South Haven, MI 49090**

**Provide directions to location if necessary:**

**Start Date: \_\_\_TBA\_\_\_\_\_\_\_\_\_\_
End Date: \_\_\_TBA\_\_\_\_\_\_\_\_\_\_\_** (Must be at least 16 hours of instructional time)

**Day of the Week: Circle: M Tu W Th F To be arranged with students**

**Begin and end time of class: \_\_\_\_\_\_TBA\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Contact/Instructors: Ted Guimond**

**Email and Website: tguimond@comcast.net**

**Best phone #: 269-767-4600 Publish # on website? Y**

**Does the student also need to register with you or at your location? Y**

**Classes will be (circle one): Pass/Fail 80% on written test + satisfactory completion of projects.**

**Briefly describe the course, including topics to be covered and subject areas that the course will cover –this is what will be posted on our website:**

An introduction to the art of blacksmithing. Students will learn the basics of working with a coal forge and a gas forge, hand forging, decorative twists, and use of special tools. Students will begin with simple projects such as nails, kabob skewers, “S” hooks, coat hooks, and letter openers. More complex projects are possible depending on the student’s ability.

**Weekly breakdown of instruction:** *classes will be ten two hr sessions*

Week 1: Learn safety in attire and practice. Forge 3 kabob skewers.

Week 2: Review safety, Forge “quick tongs”.

Week 3: Review safety, Forge door pull.

Week 4: Review safety. Forge nails and a Friederick Cross.

Week 5: Forge nail hooks.

Week 6: Forge “S” hooks.

Week 7: Forge coat hook with leaf element.

Week 8: Forge a trivet.

Week 9: Forge bathroom T P holder with at least two decorative elements.

Week 10: Forge a letter opener.

**All projects include instruction on use of various finishes.**

**All classes must have a min. of 4 Course Objective Checkpoints unique to your class. You will note on the attendance sheet when students have met these objectives. Write in #’s 2 and 3:

1st: pre-test**

 **2nd: Continuous attendance in class and satisfactory completion of projects through midterm date**

**3rd: Continuous attendance in class and satisfactory completion of projects through ending date**

**4th: post-test and satisfactory completion of all projects**

**List any materials that students are required to bring to class:**

* Students should always wear closed toe shoes (preferably leather)
* natural fiber clothing (100% cotton shirt and jeans).
* Pencil and notebook

**List any required or optional online resources you will use in class:**

* none

**Final Project: Circle method(s) of evaluation resulting in a percentage improvement score**

* Students will have actively engaged in class participation.
* Students will score a minimum of 80% on the final test. (same questions as on the pre-test).
* Students will satisfactorily complete all assigned projects.

**Please attach:**

**One 10 question (multiple choice, T/F, or open ended) pre/post-test to be given the first and last week of class that will assess knowledge of subject(s) covered in class during the semester. Scores must be recorded on the attendance form provided.**

**Cost per student for entire semester, including materials and supplies:**

**$20 per hr per student x 20 hr = $400 + $40 material fee = $440.00**

**Guimond Metal Art Studio requires that at least adult representative from each class remain with the class to provide instructor with “two deep leadership” for safety and liability purposes. Parents to work this schedule out among themselves.**

**BLACKSMITHING 1 PRE/POST TEST**

**1 Tell what type of clothing is appropriate to wear while blacksmithing.**

**A** Wear natural fiber clothes (jeans and 100% cotton shirt). Closed toe shoes (Leather preferred).

**2 How should you notify other people in the shop that you are going to put hot metal in or take hot metal out of the forge? Tell about both.**

**A** When moving hot metal, survey the shop to see where others are located. Then say in a loud voice, “HOT METAL” to announce your intention to move before taking other action.

**3 What is a safe way to pass hot metal to another person?**

**A** Keep your hand on a safe place on the metal leaving enough cool metal protruding below your hand that another person may grasp the cool metal. If that is not possible then use tongs and pass the person the tongs. Do not release the metal until the other person says, “THANK YOU” to indicate that they have control of the hot metal.

**4 What does it mean to “draw out” hot metal?**

**A** The process of making metal longer by hammering.

**5 How would you control the shape of your metal when drawing a taper?**

**A** Keep the metal squared the length of the taper. It is easier to control a square rod than a round one.

**6 Name at least three decorative elements in blacksmithing.**

**A**  Twists, hammer marks, leaves, punch marks, feathers, chisel designs…

**7 Name at least three types of blacksmithing joinery.**

**A** Riveting, collars, wrapping, mortise and tenon, welding…

**8 What is “quenching”?**

**A** Rapid cooling of metal in water, oil, sand, or other cooling material.

**9 Name at least three processes used in making a “S” hook.**

**A** Hammering, drawing a taper, squaring, rounding, twisting, bending, scrolling

**10 What is the difference between a nail hook and a “S” hook?**

**A** A nail hook has a hook on one end and a nail at the other end. The “S” hook has a hook at each end.