Pop Up Class – 2D Laser Cutting Basics

1. Class Overview
   - Description
     To provide instruction on what a laser cutter is, how it works, what it can be used for. Specifically, students will learn the proper use of cutting templates and proper layout of a design.

   - Prerequisites
     Ability to use either AUTOCAD, Corel Draw, Adobe Illustrator will be beneficial but not necessary

   - Anticipated Class Size – 8-10

   - Class Duration – 1 hour

   - Material Needed –
     - VLS3.60 Laser Cutter
     - 1/8” Birch Plywood
     - 1/8” Cardboard
2. **Safety**
   - Standard Machine Shop Apparel
   - Eye protection and ventilation

3. **Educational Objectives**
   - Students will be able to:
     - Convert electronic 2D drawings to a printable output on the VLS laser cutter.
     - Understand 2D construction techniques
     - Observe a laser in operation and understand the dangers involved.

4. **Class Format**
   a. **Pre-Class activity**
      i. Watch Laser cutting Demo on eCampus EIC site
   b. **In-Class activity**
      i. Explain the working theory on the laser cutter software, hardware and laser unit.
      ii. Show class samples of laser cut items and how the laser affects different materials.
      iii. Have students process a quick drawing and cut it into the laser cutter.
      iv. **Assessment**
         1. Instructor led discussion at each stage of instruction.

5. **Evaluation**
   c. Students will give verbal feedback to the instructor in a closing discussion.