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## **Introduction to CNC: Essentials for Woodworking** **April 20-24, 2020**

Dear Student,

Learning how to use a CNC is like learning any skill – it takes time, patience and practice. Yet it all starts with a strong knowledge of the fundamentals. This class is designed to give you those fundamentals. Through a series of projects, you will have the chance to learn about and practice a variety of essential CNC design and machining techniques. This class is organized to give you plenty of hands-on time using the design software and running a CNC machine – so come ready to learn and work.

See you soon,  
Randy

### **Tools to bring:**

- A laptop computer with Windows 7 or 10 installed
- Scroll wheel mouse (very important)
- Thumb drive for transferring files to the machine
- Tape measure
- Hearing protection
- Eye protection

### **Class outline**

#### Day 1 – Monday

- Introduction to CNC/CAD/CAM workflow and safety.
- VCarve Pro software setup
- Presentation – Intro to VCarve Pro
- Demo – CNC machine setup and cutting
- CAD/CAM Practice time

#### Day 2 – Tuesday

- Presentation - Three types of v-carving
- Demo - CNC wedge hold down jig
- Design time – Project 1 – V-Carved coasters
- Machine time

#### Day 3 – Wednesday

- Presentation – CAD layout tips.
- Demo - CNC screw hold down technique demo
- Design time - Project 2 – Mechanical widget toy
- Machine time

#### Day 4 – Thursday

- Presentation – CNC inlay techniques.
- Demo – VCarve inlay machine setup and glue up
- Design time - Project 3 – VCarve inlay plaque
- Machine time

#### Day 5 – Friday

- Presentation – Intro to 3D modeling
- Demo – CNC setup for 3D carving
- Design time - Project 4 – Box with 3D carved lid
- Machine time
- Wrap-up