### **CAMM 120**

#### Introduction to Fabrication

3 Credits (2 lecture hours, 2 lab hours)

# Community College of Baltimore County Common Course Outline

## Description

**CAMM 120 – Introduction to Fabrication:** introduces students to methods of metal fabrication and the tools and equipment used to engineer various products. Students focus on a variety of skills needed in the fabrication industry. Students complete individual projects which focus on metal and metal tube fabrication manufactured for use in regional industries such as aerospace, transportation, construction, and medical devices.

### **Overall Course Objectives**

Upon completion of this course, students will be able to:

- 1. identify safe working practices and safety gear used in the fabrication industry;
- 2. categorize tools used in fabrication;
- 3. describe the capabilities and functions of the fabricating tools;
- 4. demonstrate accurate use of basic measuring device;
- 5. select the proper materials for a given fabrication project;
- 6. calculate bends for various materials;
- 7. create fabricated parts to print specifications;
- 8. inspect fabricated parts;
- 9. operate shears, brakes, cut-off saw, tube notcher, and iron worker; and
- 10. evaluate finished lab projects as per specifications including deficiencies and improvements needed.

#### **Major Topics**

- I. Safe Working Practices
- II. Personal Protective Equipment
- III. Material Selection
- IV. Forming Techniques
- V. Sheet Metal Shear
- VI. Sheet Metal Brake
- VII. Tube Bender
- VIII. Tube Notcher

# **Course Requirements**

Grading will be determined by the individual faculty member, but shall include the following, at minimum:

- One written paper
- Five quizzes or small activities
- One lab project
- Five homework assignments
- Midterm exam
- Final exam

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