

UNIVERSITY OF NOTRE DAME
DEPARTMENT OF AEROSPACE AND MECHANICAL ENGINEERING
AME30362: Design Methodology, Fall 2009

P7 – Prototyping tools certification project

Project Due Date: As Assigned (No later than Dec. 1, 2009)

This project will give you the opportunity to learn how to properly and safely operate standard equipment in a machine shop setting. It will give you hands on experience with machine tools while learning how to cut parts to specifications called out on drawings. Most importantly you will learn how to use the tools in a manner that prevents harm to you and those around you.

Project Description:

The purpose is to learn how to properly operate equipment in the AME Design Studio (Rm. B-19 Fitzpatrick). You will be asked to make two parts to specifications given in CAD drawings. One part will require the use of a manual mill and the other will require the use of a manual lathe with a number of different types of tooling. You will also learn how to use measuring devices to check the part as you cut it to the specifications.

This project will be done individually. Each week 6 students will be chosen by lottery to be certified by a qualified TA in the Design Studio. The TA will explain how to use the equipment and the steps required to accomplish each task but the student will complete the parts.

Project Requirements:

You are required to read and understand the Machine Shop Safety guidelines posted on the course website before the certification session in B-19. The safety guidelines must be followed at all times while in the Design Studio as they are in place to prevent harm to you and those around you.

You are required to set up a time to meet with a TA to be certified. You will be contacted by email to work out a time that works for both you and the TA. You must complete your training in the week you are selected to receive course credit for this project. If you have a conflict during the week you are selected, contact the project TA coordinator.

During the training process you are to produce two parts that conform to the specifications shown in the drawings. You will complete these parts on your own with the aid of a supervising TA. It is up to the TA to decide whether you adequately understand how to safely operate the equipment.

Project TA Coordinator:

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