

**SYLLABUS HANDOUT**

**For**

**PRMA 1401 JD**

**MACHINE TOOL I**

**NORTH HIGH**

**Metropolitan Community College**

## Course Syllabus

### **COURSE IDENTIFICATION**

Title: Machine Tool 1  
Prefix/Section: PRMA 1401  
Credit Hours: 9.0  
Begins/Ends/No-Class Days: 1/4/2023 – 5/26/2023  
Meeting Day/Time: MTWThF 1:35 – 3:05  
No class days: refer to OPS calendar  
Last Day to Withdraw: 1/18/23  
Delivery Type: Classroom  
Class Location: NHS  
Lab Location: NHS

### **CONTACT INFORMATION**

Instructor Name: Lucas Kern / Jeff Banker  
Office Location: NHS  
Telephone: 531-622-4658  
Office Hours: By appointment  
Email Address: [lakern@mccneb.edu](mailto:lakern@mccneb.edu)  
Office Phone: cell (402) 740-2074  
Academic Program Area: Applied Technology  
Academic Deans office telephone: Kassie Nelson (531) 622-5424  
Note: Any questions or concerns regarding this course should first be directed to the instructor.

### **COURSE INFORMATION**

#### Course Description:

This course introduces the student to machines, tools, and processes associated with the machine trade. It covers fundamentals in bench layout, metal removal processes, drill presses, and horizontal and vertical saws. The course also covers the use of all precision machining tools.

#### Course Prerequisites:

Recommended PRMA 1400 Precision Machine Safety / Principals

## COURSE OBJECTIVES:

Upon completion of this course, students will:

1. Safely and effectively use the various types of stock cut-off machines.
2. Students will safely and effectively utilize the common drill press.
3. Recognize different types of industrial drill machines.
4. Apply the different types of tooling used in a drill press.
5. Determine cutting speeds and feeds for drilling operations.
6. Demonstrate the ability to sharpen drill bits.
7. Demonstrate the use of different work-holding methods when using the drill press.
8. Demonstrate safety procedures for operating drill press and various cut-off machines.
9. Interpret the Drill chart.
10. Ability to read precision measurement devices by applying mathematical skills.
11. Identify and apply symbols and lines used on blueprints.
12. Demonstrate safety and rules governing the use of machine tools.
13. Identify the anatomy of the Knee Mill and Engine Lathe.
14. Perform basic operations of precision machining.

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## REQUIRED TEXTBOOK (S) and/or MATERIALS:

Title(s):        Precision Machine Technology & Precision Machine Technology Workbook & Project Manual

Edition:        3rd Edition

Author:         Hoffman, Hopewell and Janes

Publisher:      Cengage Learning

Course Structure:

Classroom activities may include lectures, hands-on activities, guest speakers, field trips and audio visual.

## STUDENT EMAIL REQUIREMENTS:

Students enrolled in credit classes are required to check and use CANVAS Inbox (<https://canvas.mccneb.edu>) and MCC (<https://outlook.com/mccneb.edu>) for all official course and College correspondence.

## **ASSESSMENT OF STUDENT WORK**

### **1. Types of Assessment/Assignments**

- Students will be assessed by completing home-work, written tests and lab assignments.
- Students will be expected to participate in all lectures, demonstrations and projects.
- Assignments will be a series of hands-on projects and written assignments.
- The student is totally and completely responsible for all assignments and materials.

#### **MAKE-UP TEST PROCEDURES:**

Make up tests and tasks will be assigned on an individual basis.

#### **LATE ASSIGNMENTS:**

Assignments over one week late will not be accepted.

### **2. Grading Policy**

#### **Final Course Grade**

Grades will be determined by written test scores as well as the completion and quality of hands on projects.

Grading scale is as follows:

100 - 90 = A

89 - 80 = B

79 - 70 = C

69 - 60 = D

### **3. Maintenance of Student Records**

- A. Written tests will be graded and returned for review in a timely manner.
- B. Hands-on projects and techniques:
  - Feed back given during process
  - Graded at completion.

## INSTRUCTOR'S EXPECTATIONS OF STUDENT

### **Required Expectations**

A lot of information is put out each class that is not available solely by reading the textbook. We do not have the time to go back and cover material from previous classes for those who miss.

Absent (five) Classes	Minus one letter grade
Absent(seven)Classes	Minus two letter grades
Absent (nine) Classes	Fail the class

Tardiness counts as half day absent. A tardy is defined as being late for class or leaving before class is over.

### **RECORDING IN THE CLASSROOM:**

Students may not video or audio record class sessions without the instructor's knowledge and permission. If recording of class sessions is authorized as a reasonable accommodation under Americans with Disabilities Act (ADA), the instructor must have the appropriate documentation from College Disability Support Services. Permitted recordings are to be used only for the individual student's educational review of the class session and may not be reproduced, posted, sold or distributed to others. Students who violate this policy are subject to disciplinary procedures as outlined in the Student Conduct Code.

### **Suggested Expectations**

#### Student Conduct

- Safety is our first concern. Students will adhere to all safety requirements.
- Safety glasses will be worn at all times when the lab area is in use.
- Students conduct in the classroom and lab must be appropriate; horseplay, practical jokes, tampering with safety devices, inappropriate behavior and language will not be tolerated.
- One warning will be issued about misconduct with further incidences resulting in the instructor withdrawing the student from class.
- Cell phone interruptions will not be tolerated in the classroom or labs.

**Notice:** This syllabus is written as an expectation of class topics, learning activities, and expected learning outcomes. However, this is a living document and the instructor reserves the right to make changes in this schedule that may result in enhanced or more effective learning for

students. These modifications will not substantially change the intent or objectives of this course and will be done within the policies and guidelines of Metropolitan Community College.

## **LEARNING SUPPORT**

Metro's Learning, Math, and Writing Centers can help you achieve educational success. The staff in these centers provide drop-in assistance with basic math, reading, writing and computer skills. We offer a friendly, supportive learning environment. Self-paced computer-assisted instructional support in reading, vocabulary, typing, English as a Second Language, and online course orientation is also available.

Detailed information about these services are in the Student Handbook, College Catalog, and online. Links to these resources are located at <http://www.mccneb.edu/learningcenter/>.

## **COLLEGE POLICIES**

College policies, such as student rights and responsibilities, academic standards, plagiarism, and etc. are outlined in the College Catalog and Student Handbook. This information can be accessed via the online catalog at <http://www.mccneb.edu/academics/catalog.asp>.

### **STUDENT WITHDRAWAL:**

If you cannot participate in and complete this course, you are encouraged to contact your instructor and consult an MCC advisor, counselor, or the Financial Aid Office to evaluate the consequences of dropping the class. You can officially withdraw through My Services on the MCC My Way portal at <https://myway.mccneb.edu/> or by calling Central Registration at 402-457-5231 or 1-800-228-9553. The last date to withdraw is noted in the CLASS IDENTIFICATION section of this syllabus.

### **STUDENT CODE OF CONDUCT:**

The college has a standard code of conduct that involves consequences for specific academic and non-academic behavior that may result in a failing grade, probation, or suspension from the college. More complete information about the code of conduct is located in the Student Services portion of the online catalog (<http://www.mccneb.edu/catalog/studentinformation.asp>).

### **ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:**

Metropolitan Community College will provide reasonable accommodations for persons with documented qualifying disabilities. It is the student's responsibility to request accommodations from Disability Support Services (DSS) located in each Student Services Office. After students have arranged for accommodations with DSS, the student and instructor should privately discuss these accommodations. For further information, please contact DSS or visit <http://www.mccneb.edu/dss/>.

**[Other pertinent college policies are posted on the CDS website [www.mccneb.edu/cds](http://www.mccneb.edu/cds); it is suggested, but not required, that they be attached to your syllabus.]**

## NONDISCRIMINATION AND EQUAL OPPORTUNITY STATEMENT:

Metropolitan Community College does not discriminate on the basis of race, color, national origin, religion, sex, marital status, age, disability or sexual orientation in admission or access to its programs and activities or in its treatment or hiring of employees.

## **TECHNOLOGY SUPPORT**

- If you have difficulty connecting to the Internet, call your Internet provider.
- If you need help connecting to the course from the Blackboard login page, refer to “Getting Started Online” at <http://www.mccneb.edu/elearning/orientation.asp>.
- If you are unable to solve the problem, email [BlackboardSupport@mccneb.edu](mailto:BlackboardSupport@mccneb.edu) or call 402-457-2834.

**IMPORTANT DATES** *Note: You may want to include a link Metro’s Academic Calendar at <http://www.mccneb.edu/academics/calendar.asp?Theme=2> )*

## ADDITIONAL STUDENT INFORMATION:

National Technical Honor Society:

- Providing the highest quality recognition for outstanding students in career and technical education,
- Supplying excellent services to our diverse and multi-cultural membership and member schools,
- Providing scholarship opportunities for its members,
- Creating new and emerging relationships between the educational community and business and industry,
- Being a flexible organization on the leading edge of technology and constantly responding to change,
- Maintaining financial responsibility to meet our increasing needs,
- Sustaining growth, innovation and continuous improvement based upon ongoing evaluation.

For more information log on to [www.nths.org](http://www.nths.org)

SkillsUSA:

- SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled work force. SkillsUSA helps each student excel.
- SkillsUSA is a national nonprofit organization serving teachers and high school and college students who are preparing for careers in trade, technical and skilled service occupations, including health occupations. It was formerly known as VICA (Vocational Industrial Clubs of America).
- The SkillsUSA Championships is the showcase for the best career and technical students in the nation. Contests begin locally and continue through the state and national levels.

- This is a multi-million dollar event that occupies a space equivalent to 16 football fields. In 2009, there were more than 5,400 contestants in 91 separate events. Nearly 1,500 judges and contest organizers from labor and management will make the national event possible.
- The philosophy of the Championships is to reward students for excellence, to involve industry in directly evaluating student performance and to keep training relevant to employers' needs.

For more information log on to [www.skillsusa.org](http://www.skillsusa.org)