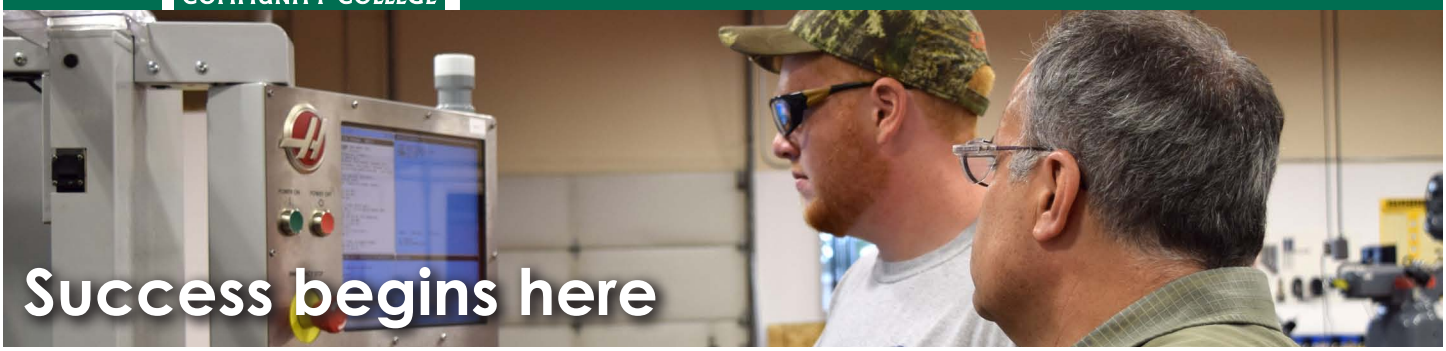
# PRECISION MACHINING TECHNOLOGY

NORTHERN MAINE COMMUNITY COLLEGE




## PURPOSE OF PROGRAM

In the precision machining technology program, students develop advanced skills in setting up and operating machine tools to produce precision parts and develop the required skills in preparation for automated machining. Students learn all required areas of manual machining before beginning on the high-tech skills of computer numerical control (CNC) machine tools. Students are involved in all aspects of the machining process, from blueprint reading and interpretation, precision measuring, through material removal. There is a strong general education component integrated into the program to satisfy demands for appropriate work force skills. A number of employers are committed to providing summer work and/or cooperative work experience for NMCC precision machining technology students.

## CAREER OPPORTUNITIES

Graduates of the precision machining technology associate degree program find employment in regional or state manufacturing facilities as machine tool operators, precision machinists, tool and die makers, CNC operators/programmers, and quality control inspectors. Graduates of the certificate program may choose to continue to the associate degree program, or they may find work as entry-level machine tool operators.

*NMCC is an equal opportunity/affirmative action institution and employer. For more information, please call 768-2791.*

## ADMISSIONS POLICY

Completion of a four-year high school program or a state high school equivalency certificate is required for admission into NMCC's precision machining technology programs. Associate degree applicants are required to have taken high school algebra I, algebra II and geometry; physics is also desired. For the certificate program, two years of high school math, including algebra I, is required, with algebra II, geometry and physics desired. A rolling admissions policy affords candidates the opportunity to apply and be accepted throughout the year, but early application (9-10 months prior to the school year) is recommended because of competition and strict enrollment capacities established for each program.

## APPLICATION PROCEDURE

*The following procedures constitute the admissions process:*

1. Submit application form to the Admissions Office, accompanied by a non-refundable $20 application fee.
2. Submit an official high school transcript for all years attended. Current high school seniors: include grades for the ranking periods completed at the time of application.
3. Non-high school graduates: submit GED or HiSet test scores to the Admissions Office.
4. Applicants who have attended other colleges or post-secondary schools: submit official college transcripts to the Admissions Office.
5. Placement testing or appropriate SAT scores, individual interviews and campus tours are required in most cases prior to admissions notification.
6. Admission decisions are made as quickly as possible once a candidate's file is complete.
7. A classroom deposit is required within two weeks of acceptance notification. For those wishing to live on campus, an additional deposit is required to reserve dorm space.

# PRECISION MACHINING TECHNOLOGY

*2016-2017 Curriculum*

## Associate in Applied Science Degree Program

| First Semester | | C | L | CR |
|---|---|---|---|---|
| DRT 109 | Mechanical Drafting & Design | 1.5 | 4.5 | 3 |
| MAT 119 | Applied Mathematics | 4 | 0 | 4 |
| ♦ **MTT 113** | **Machine Tool Technology** | **3** | **9** | **6** |
| ♦ **MTT 115** | **NIMS Lab I** | **0** | **3** | **1** |
| ♦ **PMM 102** | **Intro to CNC Operations** | **1** | **3** | **2** |
| ♦ PMM 104 | Machine Trades Print Read | 1 | 0 | 1 |
| SAE 117 | Occupational Safety | 1 | 0 | 1 |
| | | 11.5 | 19.5 | 18 |

| Second Semester | | | | |
|---|---|---|---|---|
| ENG 111 | English Composition | 3 | 0 | 3 |
| ♦ **MTT 119** | **NIMS Lab II** | **0** | **3** | **1** |
| ♦ **MTT 125** | **Machine Tool Tech. II** | **3** | **9** | **6** |
| ♦ **PMM 120** | **Intro. to CNC Programming Set Up & Operation** | **1.5** | **4.5** | **3** |
| ♦ **PMM 212** | **Geometric Dimensioning & Tolerancing** | **1** | **3** | **2** |
| | General Education Elective | 1 | 0 | 1 |
| | | 9.5 | 19.5 | 16 |

| Third Semester | | | | |
|---|---|---|---|---|
| PHY 150 | Physics | 3 | 2 | 4 |
| ♦ **PMM 117** | **CAM for Milling** | **1** | **3** | **2** |
| ♦ **PMM 119** | **CAM for Turning** | **1** | **3** | **2** |
| ♦ **PMM 223** | **Intro to PMM** | **3** | **9** | **6** |
| ♦ **PMM 227** | **NIMS Lab III** | **0** | **3** | **1** |
| | | 8 | 20 | 15 |

| Fourth Semester | | | | |
|---|---|---|---|---|
| COM 221 | Technical Communications | 3 | 0 | 3 |
| ♦ **PMM 231** | **Advanced Precision Metals Manufacturing** | **3** | **9** | **6** |
| ♦ **PMM 233** | **NIMS Lab IV** | **0** | **6** | **2** |
| | Humanities Elective | 3 | 0 | 3 |
| | Social Science Elective | 3 | 0 | 3 |
| | | 12 | 15 | 17 |

**TOTAL REQUIRED** 66

## Certificate Program

| First Semester | | C | L | CR |
|---|---|---|---|---|
| DRT 109 | Mechanical Drafting & Design | 1.5 | 4.5 | 3 |
| MAT 119 | Applied Mathematics | 4 | 0 | 4 |
| ♦ **MTT 113** | **Machine Tool Technology** | **3** | **9** | **6** |
| ♦ **MTT 115** | **NIMS Lab I** | **0** | **3** | **1** |
| ♦ **PMM 102** | **Intro to CNC Operations** | **1** | **3** | **2** |
| ♦ PMM 104 | Machine Trades Print Read | 1 | 0 | 1 |
| SAE 117 | Occupational Safety | 1 | 0 | 1 |
| | | 11.5 | 19.5 | 18 |

| Second Semester | | | | |
|---|---|---|---|---|
| ENG 111 | English Composition | 3 | 0 | 3 |
| ♦ **MTT 119** | **NIMS Lab II** | **0** | **3** | **1** |
| ♦ **MTT 125** | **Machine Tool Tech. II** | **3** | **9** | **6** |
| ♦ **PMM 120** | **Intro. to CNC Programming Set Up & Operation** | **1.5** | **4.5** | **3** |
| ♦ **PMM 212** | **Geometric Dimensioning & Tolerancing** | **1** | **3** | **2** |
| | | 8.5 | 19.5 | 15 |

**TOTAL REQUIRED** 33

♦ ***Major courses; a minimum grade of "C" or 2.0 required.***