

PRECISION MACHINING TECHNOLOGY



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 should be able to 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 on 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. An application form must be submitted accompanied by a nonrefundable \$20 application fee.
2. An official high school transcript must also be submitted (current seniors' transcripts should include completed ranking periods).
3. GED test scores must be submitted by applicants who are not high school graduates.
4. Official college transcripts must be submitted by applicants who have attended other colleges or post-secondary schools.
5. Placement testing or appropriate SAT scores, individual interviews and campus tours are required, in most cases, prior to being admitted.
6. Admissions decisions are made as quickly as possible once a candidate's file is complete.
7. Accepted applicants are required to make a deposit within thirty days of acceptance. Students requesting on campus housing are required to submit an additional deposit to reserve space in the residential complex.

PRECISION MACHINING TECHNOLOGY

2015-2016 Curriculum

Associate in Applied Science Degree Program

<u>First Semester</u>		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

<u>Second Semester</u>		C	L	CR
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

<u>Third Semester</u>		C	L	CR
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

<u>Fourth Semester</u>		C	L	CR
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

<u>First Semester</u>		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

<u>Second Semester</u>		C	L	CR
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.