



# Precision Machining - Optical Fabrication Certificate

**GAIN HANDS-ON TRAINING AND JOB-READY SKILLS THAT ARE IN HIGH DEMAND.** MCC has one of the best-equipped college machining programs in New York State. Our Precision Machining certificate program provides you with first-hand experience in the most current techniques and technology in optical fabrication, plus the opportunity to learn directly from journeyman machinists with years of professional experience. You'll enjoy many opportunities for part-time work while you're in the program—about 90 percent of our students hold jobs. And in just one year, you'll graduate with a certificate and a bundle of highly sought skills that prepare you for immediate employment.

## PROGRAM DESCRIPTION

This one-year certificate program is designed to prepare you for immediate employment in the precision machining industry. The program places special emphasis on optical fabrication, which involves the manufacturing of components used in lasers, fiber optics, and digital imaging. You'll learn the principles and practices of precision metalworking, and then apply these skills to the materials used in fiber optics, digital imaging, lasers, and other technological applications.

Students interested in this program may also be interested in the two-year Precision Machining associate degree or the Apprentice Training & Machine Trades program.

“When I get a resume from an MCC graduate, it goes to the top of the pile.”

—Jim Sydor  
Sydor Optics

## CURRICULUM OVERVIEW

### FIRST SEMESTER:

- TAM 121 Mathematics for Machinists I
- TAM 131 Machine Shop Print Reading I
- TAM 101 Machine Shop Theory I
- TAM 141 Machine Shop Lab
- OPT 131 Optical Elements and Ray Optics

### SECOND SEMESTER:

- TEK 101 Computer Applications for Technicians **OR**
- CRC 113 Introduction to Microsoft Excel
- TAM 123 Mathematics for Machinists II
- TAM 139 Machine Shop Theory II
- TAM 142 CNC-Mill Set-up **OR**
- TAM 143 CNC-Lathe Set-up
- TAM 205 CNC Machining Project Lab
- OPT 135 Measurement and Analysis

**Total Credits: 32-33**



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*Start your career with employers like these:*

- PEKO Precision Products
- CooperVision
- Rochester Precision Optics
- Gleason Corporation
- Advantech Industries
- Optimax
- Sydor Optics
- JML Optics

*Average starting salary: \$33,000 per year.*

*Your job title could be:*

- Computer-Controlled Machine Tool Operator—Metal and Plastic/Optician
- Machinist—Optical, Aircraft, or Automotive
- First-Line Supervisor of Production and Operating Workers

**A STRONG START—ACADEMICALLY AND FINANCIALLY!**

MCC's low tuition (\$1,708 per semester) plus financial aid opportunities help make a high-quality education affordable. You could qualify for federal grants, workforce grants, scholarships, and more.

Visit [www.monroecc.edu/go/finaid](http://www.monroecc.edu/go/finaid) or call 585.292.2050.

**AMONG THE BEST COMMUNITY COLLEGES**

MCC is part of the State University of New York (SUNY) and recognized as being among the 19 most innovative community colleges in the United States as a member of the League for Innovation in the Community College. The League's members demonstrate educational leadership in academics, technology, workforce development, and administration.

**FIND OUT MORE**

To learn more about MCC, visit us on the web at [www.monroecc.edu](http://www.monroecc.edu)

Apply today at [admissions.monroecc.edu](http://admissions.monroecc.edu) or contact the Admissions Office at 585.292.2200 to schedule a visit.