

# CNC MACHINE PROGRAMMER, CERTIFICATE OF ACHIEVEMENT

**Banner Code:** 1\_CT\_MTMP

**Control Number:** 19543

**Financial Aid Eligible**

The CNC Machine Programmer certificate includes courses designed to upgrade the skills and knowledge of the machinist or the CNC machine operator to the level of the CNC machine programmer. If you are a machinist and have minimal experience with CNC machines or machine language programming, you will first want to complete the CNC Machine Operator Professional Upgrade Certificate. If you have both machining experience and CNC experience, the software used for the Machine Technology A133 and A134 courses provides excellent experiences in computer-assisted CNC programming. All of our programming courses require the use of a personal-type computer. If you have no computer experience, we strongly suggest you enroll in a basic computer use type course first (Computer & High Technology A100 or Computer Information Systems A100).

## Program Outcome

Write part machine programs for controlling CNC lathes and milling machines.

Review Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/certificates/#achievementtext>).

## Required Prerequisites

### Machinist Certificate of Achievement (24 Units)

Course	Title	Units
MACH A100	Introduction to Machine Shop	3
MACH A105	Lathe	5
MACH A110	Milling Machine	5
MACH A115	Production Machining Techniques	2
MACH A120	Measurement and Blueprint Reading	3
MACH A121	Computations for Machinists	3
MACH A130	Introduction to CNC and Manual Programming	3
<b>Total Units</b>		<b>24</b>

## Required Courses

Course	Title	Units
MACH A125	CNC Machine Operation 1	3
MACH A126	CNC Machine Operation 2	2
MACH A134	CNC Programming-Mastercam 2	3
MACH A141	Mastercam Lathe	1.5
MACH A142	Mastercam Solids	2
<b>Total Units</b>		<b>11.5</b>

Requirement	Units
Program Prerequisites	24
Award Units	11.5
<b>Total Units</b>	<b>35.5</b>

## Program Sequence

These sequences at Orange Coast College are curriculum maps for students to finish all requirements for the certificate. There may be advisories, prerequisites, or time requirements that students need to consider before following these maps. **Students are advised to meet with an Orange Coast College Counselor for alternate sequencing.**

**Some courses in this program may be offered once per academic year.**

Course	Title	Units
<b>Year 1</b>		
<b>Semester 1</b>		
MACH A100	Introduction to Machine Shop	3
MACH A105	Lathe	5
MACH A120	Measurement and Blueprint Reading	3
MACH A121	Computations for Machinists	3
<b>Units</b>		<b>14</b>
<b>Semester 2</b>		
MACH A110	Milling Machine	5
MACH A130	Introduction to CNC and Manual Programming	3
<b>Units</b>		<b>8</b>
<b>Year 2</b>		
<b>Semester 1</b>		
MACH A125	CNC Machine Operation 1	3
MACH A115	Production Machining Techniques	2
MACH A133	CNC Programming-Mastercam 1	3
<b>Units</b>		<b>8</b>
<b>Semester 2</b>		
MACH A126	CNC Machine Operation 2	2
MACH A141	Mastercam Lathe	1.5
MACH A142	Mastercam Solids	2
MACH A134	CNC Programming-Mastercam 2	3
<b>Units</b>		<b>8.5</b>
<b>Total Units</b>		<b>38.5</b>