

## Certificate Form

**Certificates of Achievement (if applicable):**

- An Annual Update must be completed for each Certificate of Achievement program.
- Programs with stackable certificates fill out the following form, which is included in the related degree program review.
- Stand-alone certificates fill out the entire Annual Update.

**Name of Program:** Manufacturing Technology\_\_\_\_\_

Certificate Name	JSC	CA	Is the certificate stackable?	Is the certificate a stand alone program
Basic Machine Tool Operations Lathe, Mill	x		yes	no
Computer Numerical Control Programming	x		Yes	no
Manufacturing Technology Certificate of Achievement		x	Yes	no

**Please discuss the following questions regarding all area Certificates of Achievement (CA):**

**1. List certificates that are proposed for addition.**

None

**2. List certificates that are proposed for deletion.**

None

**3. For this CA, what are the SOC codes (Occupational Titles and codes) that students who complete the CA will be able to obtain entry-level employment in, and what are the projected annual openings and median salary for each occupational title? You can use your latest Program Review data for your response.**

Structural Metal Fabricators and Fitters (SOC 51-2041)

Computer-Controlled Machine Tool Operators, Metal and Plastic (SOC 51-4011)

Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (SOC 51-4012)

Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4021)

Forging Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4022)

Rolling Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4023)

Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4031)

Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4032)  
 Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4033)  
 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4034)  
 Milling and Planning Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4035)  
 Machinists (SOC 51-4041)  
 Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4081)  
 Tool and Die Makers (SOC 51-4111)  
 Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4191)  
 Layout Workers, Metal and Plastic (SOC 51-4192)  
 Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic (SOC 51-4193)  
 Tool Grinders, Filers, and Sharpeners (SOC 51-4194)  
 Metal Workers and Plastic Workers, All Other (SOC 51-4199)

Annual openings related to SOC designations:

Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017-22)
Machinists	425	48	\$19.88	3.29%
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	123	13	\$13.38	0.81%
Computer-Controlled Machine Tool Operators, Metal and Plastic	72	10	\$25.45	18.06%
Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	67	8	\$14.39	7.46%
Structural Metal Fabricators and Fitters	38	5	\$17.65	15.79%
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	37	5	\$15.75	16.22%
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	36	4	\$16.02	2.78%
Metal Workers and Plastic Workers, All Other	30	3	\$16.59	(6.67%)
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	25	3	\$16.95	(4.00%)
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	25	3	\$15.34	(4.00%)
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	21	3	\$24.97	9.52%
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	17	2	\$16.65	0.00%
Tool and Die Makers	16	2	\$23.31	12.50%
Tool Grinders, Filers, and Sharpeners	16	2	\$16.46	(6.25%)
Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	13	1	\$18.11	0.00%
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	13	1	\$15.47	0.00%

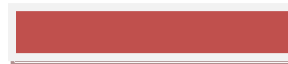
Layout Workers, Metal and Plastic	11	1	\$20.82	(9.09%)
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**4. For this CA, what process was followed to ensure the required and possible elective courses were adequate for entry level employment (such as advisory committee input, surveys, industry feedback, licensing or accreditation agencies)? How often do/will you re-examine the effectiveness of certificate requirements?**

Until last year, this program has been taught mainly by adjunct instructors. A new, full-time instructor has been hired. A Manufacturing advisory committee has been formed. The committee's members are comprised of local Industry professionals with a pulse on local and regional skills needs. The committee has been solicited for their feedback on alignment and direction related to our course offerings. At present, our program meets their Industry entry level requirements. Redesigning the manufacturing program to improve the core indicators is underway, with changes and suggestions coming after the next cycle.

**5. What is your annual completion target (number of certificates awarded) for this CA? What was the number of awards in this CA for each of the past three years? Based on your results, what changes could you make in your program to meet or continue to exceed your target (such as course content, scheduling/sequence, outreach, instructional strategies)?**

The annual target for certificates awarded within Manufacturing is ?



Awards by Type & Program <sup>10</sup>		2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total
AS	*Control Systems Technology					1	1
	Indultrl Tech,Mfg Tech				2	4	6
	<b>Award Type Total</b>				<b>2</b>	<b>5</b>	<b>7</b>
Cert	Basic Mach Tool Op/Lathe, Mill	33	12	32	11	6	94
	Computer Num Control Program	6		2	4	1	13
	Manufacturing Technology				1		1
	<b>Award Type Total</b>	<b>39</b>	<b>12</b>	<b>34</b>	<b>16</b>	<b>7</b>	<b>108</b>
<b>Total Awards</b>		<b>39</b>	<b>12</b>	<b>34</b>	<b>18</b>	<b>12</b>	<b>115</b>

The changes that will be made to increase certificate awards will be through more frequent marketing & communication of programs award certificate existence. Most that have been verbally polled regarding completions within the program were unaware that they could obtain a (JSC) or (CA) certificates.

In order to bridge the unawareness gap, I will include specific language in each course Syllabus regarding how to obtain Cert. In addition, I will provide certificate applications to students to fill out for submission at the end of each term. Taking these steps will aid in meeting/exceeding completion targets already set, and will ensure we're capturing a higher percentage of completions moving forward.

