

NAME: \_\_\_\_\_

I.D.# \_\_\_\_\_

**2011-12**  
**INDUSTRIAL MAINTENANCE TECHNICIAN**  
**Certificate**

This program trains students for a company's individual workplace needs. Students complete a core program and then focus in one or several technical areas.

**PROGRAM REQUIREMENTS (34-35 credits)**

*(NOTE: Substitutions of an advanced class, for any class listed below, may be made with the approval of the Dean of Career & Technical Education)*

_____	AMATH 100*	2 cr	Basic Mathematics for the Skilled Trades *
_____	AMATH 101*	2 cr	Algebra for the Skilled Trades * (Prereq. AMATH 100)
* Students who score above this math level on the Math Placement Test will be allowed to substitute additional technical electives in lieu of the math course(s).			
_____	ELECT 100	2 cr	Electrical Wiring I [was APPIE 100]
_____	MILL 101	2 cr	Industrial Maintenance Techniques I [was APPMW 101]
_____	PLUMB 101	2 cr	Fundamentals of Plumbing [was APPPF 101]
_____	WELD 101	2 cr	Principles of Flat Welding [was APPW 101]
_____	_____	2-3 cr	Drafting Elective - Select ONE drafting or blueprint reading course from: DRAFT 101 (2) Drafting Essentials [was APPD 101] DRAFT 102 (2) Drafting Conventions & Symbols (Prereq. DRAFT 101) [was APPD 102] DRAFT 115 (2) Blueprint Reading for Mechanical Trades ELECT 113 (2) Blueprint Reading for Electricians [was APPIE 113] CADMD 141 (3) Technical Drafting I
_____	_____	2 cr	OSHA Elective - Select ONE OSHA mandated safety course from: ELECT 120 (2) Electrical Safety [was APPIE 120] MT 120 (2) Industrial Safety [was APPMT 120]
_____	ELECTIVES	18 cr	Technical Electives - Select 18 credit from the courses listed below:

**ELECTIVE CHOICES (select 18 credits from any of the courses listed below)**

(Applied Math Electives)

_____	AMATH 103	2 cr	Geometry for the Skilled Trades (Prereq. AMATH 101)
_____	AMATH 106	2 cr	Applied Trig for the Skilled Trades (Prereq. AMATH 103)
_____	AMATH 107	2 cr	Trig and Shop Applications (Prereq. AMATH 106)
_____	AMATH 108	2 cr	Compound Angles (Prereq. AMATH 107)
_____	AMATH 110	2 cr	Gearing and Cams (Prereq. AMATH 106)

(Applied Physics Elective)

_____	APHYS 100	2 cr	Applied Physics (Prereq. AMATH 100 or MATH 090) [was PHYSI 100]
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(Business Electives)

_____	BUS 109	3 cr	Principles of Supervision
_____	BUS 242	3 cr	Human Resources Management

(Drafting Electives)

_____	DRAFT 101	2 cr.	Drafting Essentials [was APPD 101]
_____	DRAFT 102	2 cr.	Drafting Conventions & Symbols (Prereq. DRAFT 101) [was APPD 102]
_____	DRAFT 105	2 cr.	Design Applications for Mechanical Trades (Prereq. AMATH 101) [was APPD 105]
_____	CADMD 141	3 cr.	Technical Drafting I

(Heating, Ventilation, Air-Conditioning & Refrigeration Electives)

_____	HVACR 101	2 cr	Fundamentals of Refrigeration
_____	HVACR 102	2 cr	Advanced Refrigeration (Prereq. HVACR 101)
_____	HVACR 104	2 cr	Advanced Air Conditioning (Prereq. HVACR 103 & 108)
_____	HVACR 105	2 cr	Heating System Applications (Prereq. HVACR 104 & 108)
_____	HVACR 107	2 cr	Electrical Control Applications
_____	HVACR 108	2 cr	Advanced Controls (Prereq. HVACR 107)
_____	HVACR 109	2 cr	Install & Service of HVACR Systems (Prereq. HVACR 104, 105 & 108)

(Hydraulics Electives)

_____	HYDR 101	2 cr	Fundamentals of Hydraulics [was APPH 101]
_____	HYDR 103	2 cr	Hydraulic Controls (Prereq. HYDR 101) [was APPH 103]
_____	HYDR 106	2 cr	Pneumatics (Prereq. AMATH 101) [was APPH 106]

(Industrial Electricity Electives)

_____	ELECT 101	2 cr	Fundamentals of Electricity I [was APPIE 101]
_____	ELECT 102	2 cr	Fundamentals of Electricity II (Prereq. ELECT 101; AMATH 101 or equivalent recommended) [was APPIE 102]
_____	ELECT 103	2 cr	Alternating Current I (Prereq. ELECT 101; AMATH 101 or equivalent recommended) [was APPIE 103]
_____	ELECT 105	2 cr	Power, Transformers, & Polyphase Circuits (Prereq. ELECT 101) [was APPIE 105]
_____	ELECT 106	2 cr	DC Motors and Generators (Prereq. ELECT 101) [was APPIE 106]
_____	ELECT 107	2 cr	AC Motors and Generators (Prereq. ELECT 103 or 104) [was APPIE 107]
_____	ELECT 109	2 cr	Electrical Control for Machines II (Prereq. ELECT 101) [was APPIE 109]
_____	ELECT 110	2 cr	DC Crane Control (Prereq. ELECT 101) [was APPIE 110]
_____	ELECT 111	2 cr	Electronic Principles I (Prereq. AMATH 101 or equivalent recommended) [was APPIE 111]
_____	ELECT 112	2 cr	Electronic Principles II (Prereq. ELECT 111) [was APPIE 112]
_____	ELECT 113	2 cr	Blueprint Reading for Electricians [was APPIE 113]
_____	ELECT 114	2 cr	National Electric Code [was APPIE 114]
_____	ELECT 120	2 cr	Electrical Safety [was APPIE 120]
_____	ELECT 150	2 cr	Preventative Maintenance - Electrical [was APPIE 150]
_____	ELECT 201	2 cr	Digital Fundamentals I (Prereq. ELECT 111) [was APPIE 201]
_____	ELECT 202	2 cr	Digital Fundamentals II (Prereq. ELECT 201) [was APPIE 202]
_____	ELECT 203	2 cr	Industrial Electronics I (Prereq. ELECT 101 & 112) [was APPIE 203]
_____	ELECT 204	2 cr	Industrial Electronics II (Prereq. ELECT 101 & 203) [was APPIE 204]
_____	ELECT 206	2 cr	Instrumentation Fundamentals I (Prereq. ELECT 101) [was APPIE 206]
_____	ELECT 207	2 cr	Instrumentation Fundamentals II (Prereq. ELECT 206) [was APPIE 207]
_____	ELECT 208	2 cr	Programmable Logic Controllers I [was APPIE 208]
_____	ELECT 209	2 cr	Programmable Logic Controllers II (Prereq. ELECT 208) [was APPIE 209]
_____	ELECT 298	1 cr	Electrical Seminar (Completion of 24 credits of ELECT courses & Consent of Coord) [was APPIE 298]
_____	ELECT 299	2 cr	Electrical Internship (Completion of 24 credits of ELECT courses & Consent of Coord) [was APPIE 299]

(Information Technology Electives)

_____	ITAPP 101	3 cr	Introduction to Computers (Prereq. ITAPP 100 or equivalent and Keyboarding recommended)
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(Manufacturing Technology Electives)

_____	MT 101	3 cr	Metal Working Processes I
_____	MT 102	3 cr	Metal Working Processes II (Prereq. MT 101)
_____	MT 120	2 cr	Industrial Safety
_____	MT 220	2 cr	Metallurgy - Ferrous [was MT 206]
_____	MT 221	2 cr	Metallurgy - Nonferrous

(Millwright Electives)

_____	MILL 102	2 cr	Industrial Maintenance Techniques II [was APPMW 102]
_____	MILL 103	2 cr	Lubrication [was APPMW 103]
_____	MILL 105	2 cr	Rigging [was APPMW 105]
_____	MILL 106	2 cr	Power Train Elements (Prereq. MILL 101 & 102) [was APPMW 106]
_____	MILL 107	2 cr	Machine Vibration Analysis I [was APPMW 107]
_____	MILL 108	2 cr	Machine Vibration Analysis II (Prereq. MILL 107) [was APPMW 108]

(Plumbing/Pipefitting Electives)

_____	PLUMB102	2 cr	Drains, Wastes and Vents [was APPPF 102]
_____	PLUMB103	2 cr	Plumbing and Pipefitting Heating [was APPPF 103]
_____	PLUMB104	2 cr	Plumbing and Pipefitting Code [was APPPF 104]

(Welding Electives)

_____	WELD 102	2 cr	Horizontal Welding and Brazing (Prereq. WELD 101) [was APPW 102]
_____	WELD 103	2 cr	Metal Inert and Vertical Welding (Prereq. WELD 102) [was APPW 103]

- \_\_\_\_\_ WELD 104      2 cr      Tungsten Inert and Overhead Welding (Prereq. WELD 103) [was APPW 104]
- \_\_\_\_\_ WELD 105      2 cr      AWS Structural Certification (Prereq. WELD 104) [was APPW 105]
- \_\_\_\_\_ WELD 106      2 cr      Pipe and Pressure Vessel Certification (Prereq. WELD 105) [was APPW 106]
- \_\_\_\_\_ WELD 201      2 cr      Advanced Gas Metal Arc Welding (Prereq. WELD 103) [was APPW 201]
- \_\_\_\_\_ WELD 202      2 cr      Advanced Gas Tungsten Arc Welding (Prereq. WELD 104) [was APPW 202]

\_\_\_\_\_ Attained a minimum grade point average of 2.0 in the courses identified in this certificate program.

**Current cumulative GPA:** \_\_\_\_\_

\_\_\_\_\_ Completed a minimum of one-half of the credit hours required as a student at PSC.

\_\_\_\_\_ Filed a **Graduation Petition Form** with the Office of Enrollment Services.

**Deadline for filing:** October 1 for Winter, March 1 for Spring, July 1 for Summer. (December, May & August candidates may choose to participate in the annual May Commencement Ceremony. Deadline to apply for ceremony is March 1<sup>st</sup>).

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Credits	Credits	Credits	Credits
<b>Required: 34-35</b>	<b>Completed:</b> _____	<b>In Progress:</b> _____	<b>Needed:</b> _____

**Advised By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
*SIGNATURE: Counselor or Advisor or Faculty Advisor*

**This is an UNOFFICIAL evaluation. Official Evaluations must be requested in the Office of Enrollment Services.**

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**IMPORTANT PSC GRADUATION POLICIES**

1. If the degree or certificate requirements are changed during your continuous attendance, you may elect to satisfy either the new requirements or the ones in force when you enrolled.
2. If you withdraw from Prairie State College for either a fall or spring semester, you must satisfy requirements in force at the time you re-enroll.
3. Requests for COURSE SUBSTITUTIONS in the program must be directed to the Program Coordinator. A Course Substitution Form must be signed by the Program Coordinator and submitted to the Office of Enrollment Services at least one semester prior to graduation.
4. Petitions for alteration of other graduation requirements must be submitted on a Student Appeal Form at least one semester prior to graduation.

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**DIVISION OF CAREER & TECHNICAL EDUCATION**

<b>Program Coord:</b>	Dale Ballard	Room 2188	(708)709-3769	<a href="mailto:dballard@prairiestate.edu">dballard@prairiestate.edu</a>
<b>Dept. Chair:</b>	Tom Michalak	Room T-145	(708) 709-7807	<a href="mailto:tmichalak@prairiestate.edu">tmichalak@prairiestate.edu</a>
<b>Division Dean:</b>	Marie Hansel	Room 2241	(708) 709-3648	<a href="mailto:mhansel@prairiestate.edu">mhansel@prairiestate.edu</a>

**CAREER PLANNING/PLACEMENT INFORMATION:**

*Occupational Outlook Handbook*, U.S. Department of Labor: <http://www.bls.gov/oco/home.htm>

National Tooling and Machining Association: <http://www.ntma.org>

Association for Manufacturing Technology: <http://www.mfgtech.org>

American Welding Society: <http://www.aws.org>

Employment opportunities: [www.collegecentral.com/prairiestate](http://www.collegecentral.com/prairiestate)