

Pacific Northwest Industrial Maintenance Millwright JATC

MA #1146

APPROVED ELECTIVE LIST

In Partnership with



ON-LINE CLASSES ARE NOT APPROVED. FOR FULL TERM ELECTIVE REQUIREMENTS YOU MUST SELECT A COURSE THAT IS AT LEAST 30+ HOURS. MUST MEET PREREQUISITES FOR CLASSES LISTED. FOR PREREQUISITE QUESTIONS FOR APR, FMT & ELT PLEASE CONTACT APPRENTICESHIP ADMIN.

<u>Course #</u>	<u>Title</u>	<u>Approximate Hours</u>	<u>Credits</u>
APR 121	Introduction to Electricity and Circuits	33 hours	3
APR 122	AC/DC Motor Principles	33 hours	3
APR 123	AC Theory for Motors and Transformers	44 hours	4
APR 124	Electrical Systems Operations	33 hours	3
APR 125	Elect. Circuits/Wiring Methods	33 hours	3
APR 126	Electrical Systems Installation per NEC	33 hours	3
APR 221	Advanced AC Circuitry	33 hours	3
APR 222	Hazardous Locations	33 hours	3
APR 223	Motor Control Operations Including PLC's	33 hours	3
APR 224	Electrical Code - Level I	44 hours	4
APR 225	Electrical Code - Level II	44 hours	4
APR 226	Electrical Code - Level III	44 hours	4
APR 227	NEC Review and Exam Preparation	33-36 hours	3
APR 230	National Electrical Code	33 hours	3
ARCH 112	Intro to Commercial Construction Documents	40 hours	4
ART 294A	Sculpture Welding: Metals	40 hours	3
BCT 104	Construction Math	33 hours	3
BCT 106	Hand/Power Tool Use and Safety	66 hours	3
BCT 150	Mechanical, Electrical and Plumbing	40 hours	4
BCT 213	Commercial Print Reading	33 hours	2

BCT 222	Engineering for Constructors	30 hours	3
CADD 100	CADD Orientation	30 hours	3
CADD 126	Intro to AutoCAD	40 hours	3
CADD 136	Intermediate AutoCAD	40 hours	3
CEU 3168	Forklift Training Safety and Code Certification	8 hours	0.8 CEU's
CEU 3263	Electrical Safety/NFPA 70E	8 hours	0.8 CEU's
CEU 3891	Essential Hydraulic I (offered through private vendor)	36 hours	3.6 CEU's
CEU 3892	Essential Hydraulic II (offered through private vendor)	32 hours	3.2 CEU's
DST 110	Caterpillar Engine Fundamentals	80 hours	8
DST 111	Intro to Caterpillar Service Industry	30 hours	3
DST 112	Caterpillar Hydraulic Fundamentals	40 hours	4
DST 113	Caterpillar Engine Fuel Systems	40 hours	4
DST 117	Caterpillar Machine Hydraulic Systems	80 hours	4
EET 101A	Electronic Lab Skills & Equipment I	30 hours	1
EET 101B	Electronic Lab Skills & Equipment II	30 hours	1
EET 111	Electrical Circuit Analysis I	70 hours	5
EET 112	Electrical Circuit Analysis II	70 hours	5
EET 113	Electrical Power	70 hours	5
EET 121	Digital Systems I (24hrs lecture+33hrs lab max)	57 hours	3
EET 188	Industrial Safety	20 hours	2
ELT 125	Basic Programmable Controllers (PLC's)	33 hours	2
ELT 126	Intermediate Programmable Controllers (PLC's)	33 hours	2
ELT 204	Adjustable Speed Drives	33 hours	2
ELT 220	OSHA 30 Hour Safety Training	33 hours	3
ELT 225	Advanced Programmable Controllers	33 hours	2
ENGR 100	Exploring Engineering	10 hours	1
ENGR 101	Engineering Fundamentals	60 hours	4

ENGR 213	Strength of Materials	40 hours	4
FMT 100	Intro to Facilities Maintenance Technology	33 hours	2
FMT 101	Refrigeration I	33 hours	2
FMT 102	Refrigeration II	33 hours	2
FMT 103	Refrigeration III	33 hours	2
FMT 111	Refrigeration Electrical I	33 hours	2
FMT 112	Refrigeration Electrical II	33 hours	2
FMT 113	Refrigeration Electrical III	33 hours	2
FMT 119	Water Treatment & Distribution	33 hours	2
FMT 122	Introduction to Boilers	33 hours	3
FMT 125	Natural Gas Equipment	33 hours	2
FMT 177	Intro to Applied Technologies for the Trades	33 hours	3
FMT 201	Intro to Chiller Systems	33 hours	3
FMT 202	Direct Digital Controls	33 hours	3
FMT 207	Pneumatic Controls	33 hours	2
FMT 210	Basic HVAC/R Installation & Techniques	33 hours	2
FMT 222	Intermediate Boilers	33 hours	3
MCH 100	Machine Tool Basics	20 hours	1
MCH 110B	Blueprint Reading for Machine Manufacturing	60 hours	3
MCH 120	Machine Shop Math	20 hours	2
MCH 180	Turning Machines & Operations	80 hours	4
MCH 222	CMM Operation	40 hours	2
MCH 245	Metallurgy	50 hours	2.5
MCH 272	Mastercam Level I	100 hours	5
MCH 273	Mastercam Level II	100 hours	5
MTH	Any 3 Credit or More. MTH 60 or above	-	3+
WLD	Any Credit Welding Class (Not counted as core courses)	hours vary	Credits vary

IMM APPRENTICES ONLY			
APR 268	Industrial Equipment Controls	33 hours	3
APR 272	Machining for Industrial Maintenance	33 hours	3
APR 274	HVAC, Steam and Hot Water Systems	44 hours	4
MW APPRENTICES ONLY			
APR 101	LME: Electrical Theory Fundamentals	33 hours	3
APR 102	LME: DC Motors	33 hours	3
APR 103	LME: AC Motors and Transformers	44 hours	4
APR 104	LME: Luminaires and Equipment	33 hours	3
APR 202	LME: Electrical Code – Level I	44 hours	4
APR 203	LME: Electrical Code – Level II	44 hours	4
APR 204	LME: Electrical Code – Level III	44 hours	4