



**Pioneer Technology Center Career Major
Course Requirements**

New 2020-2021

IT 76	CM Industrial Maintenance/Mechatronics	1050 Pathway
	IT60 Electrical Distribution	30 Mechatronics
	IT61 Electrical Schematics and Blueprint Reading	30 MN003 - Maintenance, Installation
	IT62 Power Transmission Principles - Hydraulics	45 & Repair CIP
	IT63 Power Transmission Principles - Pneumatics	45 15.0404 SOC17-
	IT64 Industrial Electricity	30 3024
	IT65 Industrial Wiring Methods	75 CERT -3050 - Instrumentation
	IT32 Mechanical Power Transmission Theory & Principles	75 Technician, 3901 - Industrial
	IT66 Motor Theory and Operation	75 Maintenance Mechanic, 3902 -
	IT67 Programmable Controllers	90 Fluid Power Mechanic, 3903 -
	IT68 Electrical Theory	120 Electrical/Electronic Mechanic,
	IT50A Career Readiness A	3904 - Mechanical Power
	IT50B Career Readiness B	45 Transmission Mechanic;
	IT69 Electronic Circuitry	45 WorkKeys Career Readiness
	IT70 Automated/Robotic Manufacturing	75 Certificate, 4064 - ESA-1(DC),
	IT71 Wind Energy, Maintenance, Instrumentation Capstone	105 4065 - ESA(AC), 4066 - ESA-3
	IT72 Industrial Safety	120 (Semi), 4067 - ESA-4 (Digital),
	Approved 5.11.2020	45 4052 - Electronic System
		Associate (ESA), Wind Turbine
		Technician, 3902
IT 77	CM Pre-Engineering Technology	1050 Pathway
	IT61 Electrical Schematics and Blueprint Reading	30 Mechatronics
	IT62 Power Transmission Principles - Hydraulics	45 MN003 - Maintenance, Installation
	IT63 Power Transmission Principles - Pneumatics	45 & Repair
	IT32 Mechanical Power Transmission Theory & Principles	75 CIP - 15.0404
	IT73 Programmable Controller and Programming	150 SOC Code - 17-3024
	IT68 Electrical Theory	120 CERT - 3902 - Fluid Power
	IT50A Career Readiness A	45 Mechanic, 3904 - Mechanical
	IT50B Career Readiness B	45 Power Transmission Mechanic;
	IT74 Statics Applications	75 WorkKeys Career Readiness
	8905 IT56 Fundamentals of Computer Aided Drafting and Design	120 Certificate, 4064 - ESA-1(DC),
	IT57 Material & Equipment Specifications	4065 - ESA(AC), 4066 - ESA-3
	IT75 3D Design & Manufacturing	45 (Semi), 4067 - ESA-4 (Digital),
	IT69 Electronic Circuitry	30 4052 - Electronic System
	IT70 Automated/Robotic Manufacturing	75 Associate (ESA)
	IT72 Industrial Safety	105
	Approved 5.11.2020	45



**Pioneer Technology Center Career Major
Course Requirements**

Teach Out 2020-2021

Industrial Technology Career Majors and Required Courses

		Pathway
		Mechatronics
IT07	CM Instrumentation Technician	1050 MN003 - Maintenance,
	IT23A Fluid Power Theory & Power Transmission Principles A	60 Installation & Repair
	IT23B Fluid Power Theory & Power Transmission Principles B	60 Teach Out 2020-2021
	IT27 Industrial Electricity	60
	IT28 Industrial Electronics	120
	IT31 Instrumentation & Control I	90
	IT33 Microprocessor Instrumentation	120
	IT37 Programmable Controller Programming	90 CIP - 15.0404
	IT44 Basic Electrical theory	60 SOC Code - 17-3029.09
	IT46 Digital Electronics for Manufacturing Maintenance	120 CERT -3050 - Instrumentation
	IT47 Programmable Controller Interfacing	90 Technician, 3902 - Fluid Power
	IT48 Instrumentation & Control II	90 Mechanic, 3903 -
	IT50 Career Readiness	90 Electrical/Electronic Mechanic;
Optional	IT50A Career Readiness A	45 WorkKeys Career Readiness
Tran.	IT50B Career Readiness B	45 Certificate, 4064 - ESA-1(DC),
Code		4065 - ESA(AC), 4066 - ESA-3
		(Semi), 4067 - ESA-4 (Digital),
		4052 - Electronic System
		Associate (ESA)
IT10	CM Industrial Maintenance Technician	1050 Mechatronics
	IT17 Electrical Distribution	60 MN003 - Maintenance,
	IT20 Electrical Schematics and Blueprint Reading	60 Installation & Repair
	IT23A Fluid Power Theory & Power Transmission Principles A	60
	IT23B Fluid Power Theory & Power Transmission Principles B	60 Teach Out 2020-2021
	IT24 Fundamentals of Manufacturing	45
	IT27 Industrial Electricity	60 CIP - 47.0303
	IT30 Industrial Wiring Methods	120 SOC Code - 49-2094
	IT32 Mechanical Power Transmission Theory & Principles	75 CERT - 3901 - Industrial
	IT35 Motor Theory and Operation	30 Maintenance Mechanic, 3902 -
	IT37 Programmable Controller Programming	90 Fluid Power Mechanic, 3904 -
	IT39 Lean Manufacturing Concepts	30 Mechanical Power
	IT40 Lean Manufacturing Processes	60 Transmission Mechanic;
	IT41 Safety in Manufacturing	60 WorkKeys Career Readiness
	IT42 Principles of Welding and Machining for Manufacturing M:	30 Certificate, 4064 - ESA-1(DC),
	IT43 Maintenance Tools and Equipment in Manufacturin	30 4065 - ESA(AC), 4066 - ESA-3
	IT44 Basic Electrical theory	30 (Semi), 4067 - ESA-4 (Digital),
	IT45 Electromechanical Devices and Application	60 4052 - Electronic System
	IT49 Career Readiness	90 Associate (ESA)
		60



Pioneer Technology Center Career Major
Course Requirements

IT53	CM Engineering/Process Technology
	IT23A Fluid Power Theory & Power Transmission Principles A
	IT23B Fluid Power Theory & Power Transmission Principles B
	IT24 Fundamentals of Manufacturing
	IT32 Mechanical Power Transmission Theory & Principles
	IT33 Microprocessor Instrumentation
	IT37 Programmable Controller Programming
	IT44 Basic Electrical Theory
	IT46 Digital Electronics for Manufacturing Maintenance
	IT49 Career Readiness
	IT54 Statics
	IT55 Capstone - Academy of Manufacturing Science
(8905)	IT56 Fundamentals of Computer Aided Drafting and Design
	IT57 Material & Equipment Specifications
	IT58 Automated Design & Manufacturing
	IT59 Electronic Circuits

1035	Mechatronics
60	MN003 - Maintenance,
60	Installation & Repair
45	Teach Out 2020-2021
75	
120	CIP - 15.0404
90	SOC Code - 17-3029.09
60	CERT - 3902 - Fluid Power
120	Mechanic, 3904 - Mechanical
60	Power Transmission Mechanic;
60	WorkKeys Career Readiness
30	Certificate, 4064 - ESA-1(DC),
120	4065 - ESA(AC), 4066 - ESA-3
45	(Semi), 4067 - ESA-4 (Digital),
45	4052 - Electronic System
45	Associate (ESA)
45	