

Associate of Applied Science - Industrial Machine Mechanic

Program Description

The Industrial Machine Mechanic degree program is designed to prepare students for careers in plant machinery installation, maintenance, and fabrication.

Note: Freeport McMoRan, Inc. sponsors a mining program designed to prepare students for direct employment in the mining industry. There are special admission requirements for this program. Contact 717-2002 for details.

Program Contacts

- Instructional Specialist: Stephanie Wiltcher (stephanie.wiltcher@yc.edu), telephone: (928) 717-7107
- Dean: John Morgan (john.morgan@yc.edu), telephone: (928) 717-7721

Program Outcomes

Upon successful completion of the Industrial Machine Mechanic Degree program, the learner will be able to:

1. Troubleshoot, replace, and repair hydraulic and pneumatic system components. (IPT 110, IPT 120, IPT 160, IPT 295, MET 160)
2. Fabricate and repair industrial machinery components. (IPT 260, IPT 295, WLD 112, WLD 113, WLD 250)
3. Safely utilize machine shop equipment. (AGS 101 or CSA 126, IPT 260, IPT 261, IPT 295, MET 116, MET 150)
4. Troubleshoot and repair conveyance systems. (IPT 260)
5. Troubleshoot and repair bulk material handlers. (IPT 140, IPT 260, IPT 261)
6. Repair and replace valves. (IPT 130)

Program Requirements

A minimum of 66 credit hours is required to complete the Industrial Machine Mechanic Degree.

Course	Course Title	Credit Hours
I. General Education		
A. Foundation Studies (12 credits)		
1. College Composition or Applied Communication - Select Option a or b:		
a. Writing (6 credits)		
Choose two courses from approved list		
b. Writing AND Communication (6 credits)		
Choose one course from each list		
2. Numeracy (3 credits)		
3. Critical Thinking (3 credits)		
B. Area Studies (7 credits)		
1. Physical and Biological Science (4 credits)		
	BIO105 Environmental Biology	4
OR	ENV105 Environmental Biology	4
2. Behavioral OR Social Science (3 credits) - Choose one course from either list		
Choose one course from either list		
II. General Requirements		
	AGS101 Microcomputers in Agriculture	3
OR	CSA126 Microsoft Office	3
	MET116 Rigging	1
	MET160 Basic Machine Hydr& Pneumatics	2
	WLD112 Basic Welding I	2
	WLD113 Basic Welding II	2
	WLD250 Welded Metal Fabrication	4
III. Industrial Machine Mechanic Requirements		
	IPT110 Industrial Shop Practices	3
	IPT120 Industrial Pump Maint/Repair	3
	IPT130 Industrial Valve Maint/Repair	3

Course	Course Title	Credit Hours	
IPT140	Bulk Materials Handling	3	
IPT160	Machinery Maint/Troubleshoot	3	
IPT260	Adv Machinery Maintenance	3	
IPT261	Machine Shop	3	
IV. Related Requirements - Select Option A or B			
Option A (Mining Students Only)			
	IPT295	Apprentice: Industrial Plant	3
AND	IPT295	Apprentice: Industrial Plant	3
AND	IPT295	Apprentice: Industrial Plant	3
AND	IPT295	Apprentice: Industrial Plant	3
	MET150	Surface Mine Safety Training	1
Option B (All Others) - Select at least 12 credits from the following courses:			
	AUT100	Auto/Diesel Preventative Maint	2
	AUT151	Auto Engine Repair	2
	CNC101	CNC Machine Operator	2
	CNC102	CNC Machine Set Up	2
	CNC201	Comp Aided Program CNC Mach	3
	WLD130	Oxyacetylene	4
	WLD140	Arc I	4
	WLD156	Blueprint Reading	4
	WLD210	Gas Metal Arc Welding	4