



## Engineering/Manufacturing & Industrial Technology Pathway

### Machine Repair Associate in Applied Science

Minimum credits: 60  
Minimum cumulative GPA: 2.0  
Minimum JCC credits: 12  
MACRAO agreement: No

#### GENERAL EDUCATION REQUIREMENTS (17 credits)

##### ENGLISH (3 credits)

ENG 131 Writing Experience .....3

##### MATHEMATICS (3 credits)

MTH 131 Intermediate Algebra or higher .....3

##### SCIENCE (4 credits)

PHY 231 College Physics I .....4

##### SOCIAL SCIENCE (3 credits)

Choose one of the following:

PLS 141 American National Government .....3

ECN 231 Macroeconomics .....3

##### HUMANITIES (3 credits)

Choose one of the following:

PHL 231 Introduction to Philosophy .....3

PHL 232 Logic .....3

##### HEALTH/PHYSICAL FITNESS (1 credit)

Choose one of the following:

HPF 160 Wellness .....1

HPF 168 Weight Training & Conditioning .....2

HPF 221 Jazz Techniques .....3

HPF 277 Stress Management .....2

HPF 278 Stress Management for Parents .....2

#### TECHNICAL REQUIREMENTS

##### REQUIRED COURSES

RTI 012	Math II - Algebra	.....2
RTI 050	Machine Theory I	.....2
RTI 051	Machining Theory	.....2
RTI 028	Drafting	.....2
RTI 090	Machinery Handbook	.....2
RTI 038	Pumps	.....2
RTI 018	Industrial Print Reading	.....2
RTI 070	Basic Industrial Electricity	.....2
RTI 054	Machining Methods	.....4
RTI 013	Math III - Geometry	.....2
RTI 021	Blue Print Reading II	.....2
RTI 040	Machine Reconditioning	.....4
RTI 080	Metallurgy & Heat Treatment	.....2
RTI 081	Welding I	.....4
RTI 096	Lubricants and Coolants	.....2
RTI 260	Industrial Physics	.....2
RTI 036	Drive Components and Bearings	.....2
RTI 163	Hydraulics/Pneumatics	.....2
RTI 173	Hydraulics/Pneumatics II	.....2

##### ADDITIONAL REQUIREMENTS

EMS 110	CPR & First Aid	.....2
or current Adult CPR & First Aid Certification		

##### ELECTIVES

Complete elective credits in any discipline to reach 60 credits.