# **INDUSTRIAL MAINTENANCE (IM)**

### IM 101 INDUSTRIAL MAINTENANCE 1

Provides an introduction to piping, valves installation, hydraulic and pneumatic testing. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 102 INDUSTRIAL MAINTENANCE 2

Provides an introduction to bearings, steam systems, distillation towers, heaters, coolers and furnaces. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 103 INDUSTRIAL MAINTENANCE 3

Provides an introduction to measuring tools, advanced trade math, bearing and coupling installation. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 201 INDUSTRIAL MAINTENANCE 4

Topics include setting base plates, pre-alignment, belt, seal, and chain installation. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 202 INDUSTRIAL MAINTENANCE 5

Topics include preventative and predictive maintenance, advanced blueprint reading and compressor systems. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 203 INDUSTRIAL MAINTENANCE 6

Topics include laser alignment, troubleshooting and repairing hydraulic systems, troubleshooting and repairing pumps. Laboratory exercises are designed to provide hands-on practice of concepts. (2 lecture, 1 lab)

### IM 225 ROBOTICS 1

Course covers the basic operation of a robotic arm, including safety, programming, testing a running a robot. (2 lecture, 2 lab)

### IM 254 CNC MACHINING 1

This course will teach students how to program computer-controlled milling machines. Conversational language will be used and G codes will be discussed. (3 lecture)

### IM 255 CNC MACHINING 2

This course will teach students to program and run CNC Lathes and Milling Machines. Both G Code and conversational language will be included. No previous knowledge of computers is required. (3 lecture)

### IM 260 IM CAPSTONE COURSE

This course serves as a culmination of the Indust. Maint. Certificate program. A project is designed and completed that demonstrates competencies and skills learned within the MTEC and IM courses of the program. NCCER Examinations are prepared for and taken.

IM 293 COOPERATIVE WORK EXPERIENCE	1-8 Credit Hours
IM 297 SPECIAL TOPICS	1-4 Credit Hours
(1-4 lecture)	
IM 299 INDEPENDENT STUDY	1-4 Credit Hours

(1-4 lecture)

## 3 Credit Hours

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### 1 Credit Hour