

## MACHINING AND MANUFACTURING AUTOMATION CERTIFICATE

The machining and manufacturing automation certificate program provide students the opportunity to acquire highly valued skills in an innovative, hands-on learning environment. The program features integrating experiences through which students participate in all aspects of a manufacturing organization, from materials and processes to safety, quality, maintenance, to personal relations. Armed with a high level of both technical and nontechnical skills, program graduates are prepared for employment in a rewarding, growth-oriented, and highly competitive career in today's manufacturing. *(Enrollment in the program is limited and is based on the date of application.)*

All coursework in the Machining and Manufacturing Automation Certificate program will apply as full credit towards the Machining and Manufacturing Automation Diploma and the Associate of Arts Degree or the Associate of Science Degree.

### Required Program of Study for Certificate (16 weeks)

FALL SEMESTER		Credits
Course		
INDT 1015 Introduction to Manufacturing .....	2	
INDT 1025 Introduction to Industrial Safety .....	2	
INDT 1170 Introduction to Total Quality Management ...	2	
INDT 1055 Print Reading for the Industrial Trades .....	2	
INDT 1065 Manufacturing Technologies and Measurement .....	2	
INDT 1150 Machining Fundamentals .....	2	
INDT 1160 Machining Fundamentals Lab .....	2	
MATH 1020 Technical Mathematics I .....	3	
Total Credit Hours		17

## MACHINING AND MANUFACTURING AUTOMATION DIPLOMA

The machining and manufacturing automation diploma program provide students the opportunity to acquire highly valued skills in an innovative, hands-on learning environment. In addition to developing basic knowledge, skills, and abilities for successful integration into manufacturing industries, the diploma program features integrating experiences through which students participate in middle skills training in introductory welding and fabrication, precision measurements, basic machining, and the operation and programming of computerized manufacturing technologies including Computer Numerical Control (CNC) and robotics. *(Enrollment in this program is limited and is based on the date of application.)*

All coursework in the Machining and Manufacturing Automation Diploma program will apply as full credit towards the Associate of Arts Degree or the Associate of Science Degree.

### Required Program of Study for Diploma (32 weeks)

FALL SEMESTER		SPRING SEMESTER	
Course	Credits	Course	Credits
INDT 1015 Introduction to Manufacturing .....	2	WELD 1010 Related Welding .....	0.5
INDT 1025 Introduction to Industrial Safety .....	2	WELD 1020 Related Welding Lab .....	1
INDT 1170 Introduction to Total Quality Management .....	2	INDT 1085 Industrial Maintenance Fundamentals .....	3
INDT 1055 Print Reading for the Industrial Trades .....	2	INDT 1200 Fabrication Fundamentals Lab .....	1
INDT 1065 Manufacturing Technologies and Measurement .....	2	INDT 1140 Metrology .....	2
INDT 1150 Machining Fundamentals .....	2	INDT 1180 Computerized Manufacturing Technologies ...	1
INDT 1160 Machining Fundamentals Lab .....	2	INDT 1190 Computerized Manufacturing Technologies Lab .....	1
MATH 1020 Technical Mathematics I .....	3	INDT 1040 Industrial Process Dynamics .....	2
	17	INDT 1230 Manufacturing Technology Applications ....	1
		INFO 1000 Basic Computer Applications .....	2
		BSAD 2050 Business Communications <b>OR</b> ENGL 1050 Workplace Communications .....	3
			17.5
		Total Credit Hours	34.5