

Industrial Systems Technician



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The Industrial Systems Technology curriculum is designed to prepare or upgrade individuals to safely service, maintain, repair, or install equipment. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial systems.

Students will learn multi-craft technical skills in print reading, mechanical systems maintenance, electricity, hydraulics/pneumatics, welding, machining or fabrication, and includes various diagnostic and repair procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

What Will I Learn?

The Industrial Systems Technology program prepares students to service, maintain, repair or install equipment for a wide range of industries. Students will explore areas like electronics, safety and mechanical maintenance fundamentals.

What Can I Do with This Course of Study?

Upon completion of this curriculum, graduates should be able to individually, or with a team, safely install, inspect, diagnose, repair, and maintain industrial process and support equipment. Students will also be encouraged to develop their skills as life-long learners.

AAS: Industrial Systems Technician

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward
MCHN 1302	Print Reading for Machining Trades	MW1, MC1
MCHN 1438	Basic Machine Shop I	MC1
MCHN 1425	Millwright I	MW1
ENGL 1301	Composition	

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward
MCHN 1429	Millwright II	MW1
MCHN 1454	Intermediate Machining II	MC1
MCHN 2403	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls	MC1
MCHN 2405	Millwright III	MW1
CREATIVE ARTS/ LPC SPCH	Suggested: ARCH 1311 Suggested: SPCH 1321	

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward
SBS/HIST/GOVT PS	Suggested: PSYC 2301 or SOCI 1301	
MCHN 2434	Operation of CNC Machining Centers	MC1
HYDR 1345	Hydraulics and Pneumatics	MW1
WLDG 1323 OR PFPB 1350 OR MCHN 2381	Welding Safety, Tools, and Equipment OR Plumbing and Pipefitting Equipment and Safety OR Cooperative Education – Machine Tool Technology/ Machinist	MW1 (WLDG or PFPB only) MC1 (Student may choose the WLDG or PFPB and should also complete MCHN 2381 for the MC1 certificate)
MCHN 2407	Millwright IV	MW1
MCHN 2412	Millwright V	MW1

Life and Physical
Sciences/Math

Suggested: PHYS 1405 or
MATH 1332

NOTE: One additional course not in the degree is required for the MC1
certificate: WLDG 1428 (Introduction to Shielded Metal Arc Welding (SMAW))

MC1: Certificate of Completion — Machinist

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward
MCHN 1302	Print Reading for Machining Trades	MC1
MCHN 1438	Basic Machine Shop I	#MC1
WLDG 1323	Welding Safety, Tools, and Equipment##OR##Plumbing and Pipefitting#Equipment#and Safety	MC1
OR PFPB 1350		
MCHN 2403	Fundamentals of Computer Numerical Controlled (CNC) Machine Controls	#MC1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward
MCHN 1454	Intermediate Machining II	#MC1
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	MC1
MCHN 2434	Operation of CNC Machining Centers	#MC1

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward
#MCHN 2431	#Operation of Turning Centers	#MC1

MW1: Certificate of Completion — Millwright

Foundations: These are the courses students need in order to progress in their career/college pathway, as they either provide a certificate or lay the groundwork for moving to the next set of courses.

Course	Course Title	Counts Toward
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MCHN 1302	Print Reading for Machining Trades	MW1
MCHN 1425	Millwright I	MW1

Knowledge Building: These courses further the students' knowledge in the area of study and increase their preparation for the degree completion.

Course	Course Title	Counts Toward
MCHN 1429	Millwright II	MW1
MCHN 2405	Millwright III	MW1

Completion: These are the courses the student needs in order to complete the degree plan and prepare to enter the workforce.

Course	Course Title	Counts Toward
HYDR 1345	Hydraulics and Pneumatics	MW1
WLDG 1323 OR PFPB 1350 OR MCHN 2381	Welding Safety, Tools, and Equipment OR Plumbing and Pipefitting Equipment and Safety OR Cooperative Education – Machine Tool Technology/ Machinist	MW1 (WLDG or PFPB only)
MCHN 2407	Millwright IV	MW1
MCHN 2412	Millwright V	MW1

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