



2025-26 REQUIRED COURSES NORTHWOOD TECHNICAL COLLEGE

Name/ID	Date	
·		

CATALOG NUMBER	COURSE TITLE	*HOURS PER WEEK	CREDITS	MECHATRONICS BASICS TECHNICAL DIPLOMA (30-454-1)	INDUSTRY 4.0 SMART AUTOMATION TECHNICAL CERTIFICATE (17-454-1)	AUTOMATED PACKAGING SYSTEMS TECHNICIAN TECHNICAL DIPLOMA (Financial Aid Eligible)	DATE COMPLETED	TRANSFER OR GRADE
	FIRST TERM - FALL 2025							
32150302	Applied IT Basics	2 hours per week	1 credit			Automated Packaging Systems Technician		
32414335	DC Electricity	6 hours per week	3 credits	Mechatronics Basics	Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32454341	Fluid Power Systems	6 hours per week	3 credits	Mechatronics Basics	Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32454362	Processes of Manufacturing - Packaging	4 hours per week	2 credits			Automated Packaging Systems Technician		
32804325	Applied Technical Math 1	6 hours per week	3 credits			Automated Packaging Systems Technician		
	FIRST TERM TOTAL	22 hours per week		6 Credits Mechatronics Basics	6 Credits Industry 4.0 Smart Automation	12 Credits Automated Packaging Systems Technician		
	SECOND TERM - SPRING 2026							
32414336	AC Electricity Prerequisite: 32414335 DC Electricity	6 hours per week	3 credits	Mechatronics Basics		Automated Packaging Systems Technician		
32420314	Basic Machine Shop	6 hours per week	3 credits			Automated Packaging Systems Technician		
32454345	Packaging Systems Equipment Control Prerequisite: 32414335 DC Electricity	6 hours per week	3 credits	Mechatronics Basics	Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32804334	Applied Technical Math 2 Prerequisite: 32804325 Applied Technical Math 1	4 hours per week	2 credits			Automated Packaging Systems Technician		
	SECOND TERM TOTAL	18 hours per week		6 Credits Mechatronics Basics	3 Credits Industry 4.0 Smart Automation	11 Credits Automated Packaging Systems Technician		





2025-26 REQUIRED COURSES NORTHWOOD TECHNICAL COLLEGE

CATALOG NUMBER	COURSE TITLE	*HOURS PER WEEK	CREDITS	MECHATRONICS BASICS TECHNICAL DIPLOMA (30-454-1)	INDUSTRY 4.0 SMART AUTOMATION TECHNICAL CERTIFICATE (17-454-1)	AUTOMATED PACKAGING SYSTEMS TECHNICIAN TECHNICAL DIPLOMA (Financial Aid Eligible)	DATE COMPLETED	TRANSFER OR GRADE
	THIRD TERM - FALL 2026							
32454340	Packaging Machine Maintenance COREQUISITE: 32454344 Schematics, Prints, and Layouts	6 hours per week	3 credits			Automated Packaging Systems Technician		
32454347	Electromechanical Componentry Prerequisite: 32454345 Packaging Systems Equipment Control	8 hours per week	4 credits			Automated Packaging Systems Technician		
32454344	Schematics, Prints, and Layouts	4 hours per week	2 credits			Automated Packaging Systems Technician		
	THIRD TERM TOTAL	20 hours per week				9 Credits Automated Packaging Systems Technician		
	FOURTH TERM ORDING COST							
32454343	Packaging Machine Rebuilding Prerequisite: 32454347 Electromechanical Componentry	10 hours per week	5 credits			Automated Packaging Systems Technician		
32454357	Power Transmission Componentry Corequisite: 32454345 Packaging Systems Equipment Control	4 hours per week	2 credits	Mechatronics Basics	Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32801361	Applied Communications	4 hours per week	2 credits			Automated Packaging Systems Technician		
	FOURTH TERM TOTAL	22 hours per week		2 Credits Mechatronics Basics	2 Credits Industry 4.0 Smart Automation	9 Credits Automated Packaging Systems Technician		





2025-26 REQUIRED COURSES NORTHWOOD TECHNICAL COLLEGE

CATALOG NUMBER	COURSE TITLE	*HOURS PER WEEK	CREDITS	MECHATRONICS BASICS TECHNICAL DIPLOMA (30-454-1)	INDUSTRY 4.0 SMART AUTOMATION TECHNICAL CERTIFICATE (17-454-1)	AUTOMATED PACKAGING SYSTEMS TECHNICIAN TECHNICAL DIPLOMA (Financial Aid Eligible)	DATE COMPLETED	TRANSFER OR GRADE
	FIFTH TERM - FALL 2027							
32414380	Advanced PLC Prerequisite: 32454345 Packaging Systems Equipment Control	6 hours per week	3 credits		Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32442307	Welding for Mechanics	4 hours per week	2 credits			Automated Packaging Systems Technician		
32454366	Introduction to Robotics PREREQUISITES: 32414335 DC Electricity and 32414336 AC Electricity	4 hours per week	2 credits		Industry 4.0 Smart Automation	Automated Packaging Systems Technician		
32809380	Applied Interpersonal Skills	4 hours per week	2 credits			Automated Packaging Systems Technician		
	FIFTH TERM TOTAL	18 hours per week			5 Credits Industry 4.0 Smart Automation	9 Credits Automated Packaging Systems Technician		
	SIXTH TERM - SPRING 2028							
32454348	Troubleshooting Prerequisite: 32454347 Electromechanical Componentry	4 hours per week	2 credits			Automated Packaging Systems Technician		
32454349	Installation of Packaging Machines Prerequisite: 32454347 Electromechanical Componentry	10 hours per week	5 credits			Automated Packaging Systems Technician		
32454359	Packaging Materials/Processes Prerequisite: 32454347 Electromechanical Componentry	4 hours per week	2 credits			Automated Packaging Systems Technician		
32454364	Motion Controls Prerequisites: 32454347 Electromechanical Componentry and 32414380 Advanced PLC	4 hours per week	2 credits			Automated Packaging Systems Technician		
32801362	Advanced Communication Skills Prerequisite: 32801361 Applied Communications	4 hours per week	2 credits			Automated Packaging Systems Technician		
	SIXTH TERM TOTAL	26 hours per week				13 Credits Automated Packaging Systems Technician		
	TOTAL CREDITS			14 Credits Mechatronics Basics	16 Credits Industry 4.0 Smart Automation	63 Credits Automated Packaging Systems Technician		





2025-26 REQUIRED COURSES NORTHWOOD TECHNICAL COLLEGE

*Hours per week represents periods of instruction and/or work-based learning hours per week (class hours). Additional time may be required outside of class to complete assignments. For more details on what you can expect outside of class, please see the "Expectations Outside of the Classroom" section of the Student Handbook

Please be advised that low enrollment class sections may be canceled. You will be contacted by Student Services with information on other class sections available in alternate formats.

GRADUATION REQUIREMENTS: Although your academic advisor can provide guidance, you are ultimately responsible for selecting courses that meet a program's graduation requirements. If you do not take courses in the recommended sequence above, it may delay your completion of graduation requirements. A program plan GPA of 2.0 in a 4.0 grade system is required to graduate.

EARN CREDIT FOR WHAT YOU ALREADY KNOW:

Visit Credit for Prior Learning for more information

If you have difficulty accessing this content or notice any accessibility problems, please contact the Northwood Tech Curriculum Office at curriculum.office@NorthwoodTech.edu

or 715.752.8128. You will receive a response within 5 business days.