



TRADE, INDUSTRY &

Trade, Industry, and Technical Education strives to teach and model industry standards in the lab and classroom so that job skill training can be enhanced.

Are you interested in Trade, Industry & Technical Education?

Consider starting with Trade, Industry & Technical Education Elective Options:

- Building Trades I • Building Trades II • Electrical Technology • Facilities Maintenance I
- Facilities Maintenance II • HVAC - Heating, Ventilation, Air Conditioning
- Residential Plumbing • Sheet Metal Technology • Welding Technology I • Welding Technology II



Transportation, Distribution & Logistics Career Cluster

The movement of people, materials and goods by road, pipeline, air, rail, and water.

Transportation Operations Pathway	Facility and Mobile Equipment Maintenance Pathway
<p>These are the people that drive or pilot the vehicles that transport people and freight. Equally important are the support people who ensure that any cargo transport is safe, secure and on time.</p> <ul style="list-style-type: none"> • Airline Pilots, Copilots and Flight Engineers • Railroad Brake, Signal and Switch Operators • Ship and Boat Captains • Subway and Streetcar Operators • Tractor-Trailer Truck Drivers 	<p>The people in this pathway keep the equipment and machinery running while looking for more efficient, safe and cost-effective ways to do so.</p> <ul style="list-style-type: none"> • Aircraft Mechanics and Service Technicians • Automotive Specialty Technicians • Diesel Engine Specialists • Electronic Equipment Installers and Repairers • Rail-Track Laying and Maintenance Equipment Operators
Career Pathway Classes	Career Pathway Classes
<ul style="list-style-type: none"> • Aviation Technology I • Aviation Technology II • Commercial Driver License • Unmanned Aircraft Systems • T&I Capstone • Cooperative Work Experience 	<ul style="list-style-type: none"> • Auto Collision Tech I • Auto Collision Tech II • Foundations of Automotive • Auto Tech I • Automotive Technology Summer Academy • Auto Tech II • Auto General Service Tech I • Auto General Service Tech II • Parts & Merchandise Management • Diesel Tech • Diesel Technology II • Recreational Small Engine Technology I • Recreational Small Engine Technology • T&I Capstone • Cooperative Work Experience

Manufacturing Career Cluster

Processing materials into intermediate or final products and related professional and technical support activities.

Production Pathway	Manufacturing Production Process Development Pathway
<p>People with careers in production work with machines, making or assembling electronic parts, constructing or assembling modular housing, performing welding jobs, or printing various materials.</p> <ul style="list-style-type: none"> • Electrical and Electronic Inspectors and Testers • Industrial Engineering Technicians • Metal Fabricators, Structural Metal Products • Power Distributors and Dispatchers • Welding Machine Operators and Tenders 	<p>Development Employees are responsible for product design and working with customers to ensure the product meets or exceeds customer expectations. They also monitor the manufacturing process and the materials used to manufacture the product.</p> <ul style="list-style-type: none"> • Biofuels Production Managers • Commercial and Industrial Designers • Electromechanical Equipment Assemblers • Manufacturing Production Technicians • Power Plant Operators
Career Pathway Classes	
<ul style="list-style-type: none"> • Welding Technology I • Welding Technology II • Virtual Center Welding Technology Summer Academy • Machine Tooling Technology • Automated Manufacturing • T&I Capstone • Cooperative Work Experience • Manufacturing Cluster 	<ul style="list-style-type: none"> • Electronics Technology I • Electronics Technology II • Electronics Technology III • T&I Capstone • Cooperative Work Experience • Manufacturing Cluster

Find more at RUReady.ND.gov and Insights.ND.gov/College

TECHNICAL EDUCATION

Architecture & Construction Career Cluster

Designing, planning, managing, building, and maintaining the built environment.

Construction Pathway	Maintenance/Operations Pathway	Design/Pre-Construction Pathway
<p>Workers build and remodel houses, apartments, industrial buildings, warehouses, office buildings, churches, schools and recreational facilities.</p> <ul style="list-style-type: none"> • Carpenters • Cement Masons and Concrete Finishers • Construction and Building Inspectors • Construction Managers • Cost Estimators • Crane and Tower Operators • Glaziers • Plumbers, Pipefitters and Steamfitters • Sheet Metal Workers • Structural Iron and Steel Workers 	<p>Employees in maintenance/operations determine the optimal placement of machines in a plant, install machinery and maintain the smooth operation of refineries, power plants, chemical plants and mills.</p> <ul style="list-style-type: none"> • Control and Valve Installers and Repairers • Electric Meter Installers and Repairers • General Maintenance and Repair Workers • Geothermal Technicians • Heating, Air Conditioning & Refrigeration Mechanics • Home Appliance Repairers • Installation, Maintenance and Repair Workers • Landscaping and Groundskeeping Workers • Stationary Engineers and Boiler Operators • Valve and Regulator Repairers 	<p>Employees in design/pre-construction create our future! They turn a concept into a set of plans. Their plans guide other construction professionals as they continue the building process.</p> <ul style="list-style-type: none"> • Architects • Architectural and Civil Drafters • Cartographers and Photogrammetrists • Civil Engineers • Commercial and Industrial Designers • Interior Designers • Materials Engineers • Mechanical Drafters • Surveying and Mapping Technicians • Surveyors
Career Pathway Classes	Career Pathway Classes	Career Pathway Classes
<ul style="list-style-type: none"> • Foundations of Building Trades • Building Trades I • Building Trades Summer Academy • Building Trades II • Residential Plumbing • HVAC • Electrical Technology • T&I Capstone • Cooperative Work Experience 	<ul style="list-style-type: none"> • Facilities Maintenance I • Facilities Maintenance II • Residential Plumbing • Sheet Metal Technology • HVAC • T&I Capstone • Cooperative Work Experience 	<ul style="list-style-type: none"> • Drafting Technology I • Drafting Technology II • PLTW Introduction to Engineering Design (IED) • T&I Capstone • Cooperative Work Experience

Arts, AV Technology & Communications Career Cluster

Designing, producing, exhibiting, performing, writing, and publishing multimedia content.

Visual Arts Pathway

Visual artists create art to communicate ideas, thoughts, or feelings. They use a variety of methods – painting, sculpting, illustrating – and an assortment of materials, including oils, watercolors, acrylics, pastels, pencils, pen and ink, photography, plaster, clay, and computers.

- Audio-Visual and Multimedia Collections Specialists
- Commercial and Industrial Designers
- Fine Artists, including Painters, Sculptors and Illustrators
- Graphic Designers
- Museum Technicians and Conservators

Career Pathway Classes

- Commercial Art I
- Commercial Art II
- Photography
- Graphic Communications I
- Graphic Communications II
- Audio/Visual Production
- T&I Capstone
- Cooperative Work Experience

Hospitality & Tourism Career Cluster

The management, marketing, and operations of restaurants, lodging, and travel related services.

Restaurants & Food/Beverage Services Pathway

A variety of tasks are performed to maintain operations and promote guest services in eating and drinking establishments.

- Bakers
- Baristas
- Food Concession Counter Attendants
- Food Preparation Workers
- Food Service Managers
- Restaurant Hosts/Hostesses
- Waiters and Waitresses

Career Pathway Classes

- Culinary Arts I
- Culinary Arts II
- T&I Capstone
- Cooperative Work Experience

Agriculture, Food & Natural Resources Career Cluster

The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources.

Natural Resources Systems Pathway

Systems People working in this pathway develop, maintain, manage, and protect the natural environment. This includes forest and rangelands, minerals, water, and wildlife habitats.

- Fish and Game Wardens
- Forest and Conservation Workers
- Geological Data Technicians
- Soil and Water Conservationists

Career Pathway Classes

- Exploration of Oil Industry
- Petroleum Industry Skills
- T&I Capstone
- Cooperative Work Experience