

TECHNOLOGY & ENGINEERING



Supports the STEM fields of Science, Technology, Engineering and Mathematics and stresses design, critical thinking skills, problem-solving abilities and knowledge of content, tools and processes that will help young students prepare for their future careers.

Are you interested in Technology & Engineering?
Consider starting with Technology & Engineering Education Elective Options:

• Invention & Innovation • Technological Systems



Manufacturing Career Cluster

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

Manufacturing Production Process Development Pathway

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.

- Biofuels Production Managers
- Commercial and Industrial Designers
- Electromechanical Equipment Assemblers
- Manufacturing Production Technicians
- Power Plant Operators

Career Pathway Classes

- Applying Technology
- Construction Technology
- Manufacturing Technology
- Communication Technology
- Design/Drafting
- 3D Modeling & Design
- Energy & Transportation Technology
- Robotics Engineering
- Cooperative Work Experience

Information Technology Career Cluster

The design, development, support and management of hardware, software, multimedia and systems integration services.

Programming and Software Development Pathway

Knowledge of computer operating systems, programming languages and software development is required to design and develop computer systems and software. People with expertise in programming and software development work to develop tomorrow's products for businesses and consumers.

- Computer and Information Systems Managers
- Computer Programmers
- Computer Systems Analysts
- Software Developers, Applications
- Software Developers, Systems Software
- Software Quality Assurance Engineers and Testers
- Video Game Designers

Career Pathway Classes

- PLTW Cybersecurity
- PLTW Computer Science Essentials
- PLTW Computer Science Principles
- Cooperative Work Experience

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

EDUCATION

Science, Technology, Engineering & Mathematics Career Cluster

Providing scientific research and technical services, including laboratory testing services, research, and development.

Engineering & Technology Pathway

For a future in this pathway, students should study and apply principles from advanced mathematics, life sciences, physical science, earth and space science, and technology.

- Aerospace Engineers
- Agricultural Engineers
- Architectural Drafters
- Chemical Engineers
- Civil Drafters
- Computer Hardware Engineers
- Electrical Drafters
- Electrical Engineers
- Electronic Drafters
- Materials Engineers
- Mechanical Engineers
- Mining and Geological Engineers
- Mining Safety Engineers
- Petroleum Engineers
- Product Safety Engineers
- Surveying and Mapping Technicians

Career Pathway Classes

- Foundations of Technology
- Technology & Society
- Advanced Design Applications
- Advanced Technological Applications
- Technological Design
- Robotics Engineering
- Engineering Design
- PLTW Introduction to Engineering Design
- PLTW Digital Electronics
- PLTW Principles of Engineering
- PLTW Civil Engineering and Architecture
- PLTW Environmental Sustainability
- STEM Seminar
- PLTW Engineering Essentials
- PLTW Engineering Design and Development
- Cooperative Work Experience

Health Science Career Cluster

Planning, managing, and providing therapeutic and diagnostic services.

Biotechnology Research & Development Pathway

Scientists may study diseases to discover new treatments or invent medical devices through bioscience research and development.

- Bioinformatics Scientists
- Biologists
- Biomedical Engineers
- Medical Equipment Preparers
- Medical Scientists, except Epidemiologists

Career Pathway Classes

- Biomedical Technology
- PLTW Principles of Biomedical Science
- PLTW Human Body Systems
- PLTW Medical Interventions
- Cooperative Work Experience

RUReady.ND.gov
EDUCATION & CAREER PLANNING

INSIGHTS.ND.gov
Provided by SLDS