Information Technology Education prepares students for future employment and/or continuing education opportunities in the growing field of Information Technology, which includes work in computer hardware, software, electronics, semiconductors, internet, telecom equipment, e-commerce, and computer services.

Are you interested in Information Technology?

Consider starting with Information Technology Education Elective Options:

• Intro to IT • Introduction to Cybersecurity • Computer Science Applications

NORTH DAKOTA
TSA
TECHNOLOGY STUDENT ASSOCIATION

Information Technology Career Cluster

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

Network Systems Pathway	Information Support & Services Pathway
Network analysis, planning and implementation, design, installation, maintenance and management of network systems are included in this pathway. Individuals with expertise in network systems are in high demand for a variety of positions. • Computer and Information Systems Managers • Computer Network Architects • Computer Network Support Specialists • Computer Security Specialists • Network and Computer Systems Administrators • Network Systems and Data Communications Analysts • Software Developers, Systems Software	The implementation of computer systems and software, provision of technical assistance, creation of technical documentation and management of information systems is critical to the success of most 21st century organizations. • Business Intelligence Analysts • Computer Support Specialists • Computer Systems Analysts • Database Administrators • Document Management Specialists • Information Security Analysts • Information Technology
Career Pathway Classes	**Career Pathway Classes**
• Internet of Things Fundamentals • Computer Hardware and Operating Systems (A+) • IT Essentials 2 • Introduction to Networking • CCNA Introduction to Networks • CCNA Routing & Switching Essentials • CCNA Scaling Networks • CCNA Connecting Networks • Essentials of Desktop Operating Systems – Linux • Essentials of Network Operating Systems • IT Internship • Cooperative Work Experience • Governor's School: Information Technology	• Internet of Things Fundamentals • Computer Hardware and Operating Systems (A+) • IT Essentials 2 • Introduction to Networking • CCNA Introduction to Networks • Essentials of Desktop Operating Systems • Essentials of Desktop Operating Systems – Linux • Geographic Info Systems (GIS) • IT Internship • Cooperative Work Experience • Governor's School: Information Technology

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

OLOGY EDUCATION

Information Technology Career Cluster
The design, development, support, and management of hardware, software, multimedia, and systems integration services.

Web and Digital Communications Pathway	Programming & Software Development Pathway
Organizations use digital media for creating, designing and producing interactive multimedia products and services. This includes development of digitally generated or computer-enhanced media used in business, training, entertainment, communications and marketing.	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 Operators • Graphic Designers • Multimedia Artists and Animators • Online Merchants • Search Marketing Strategists • Web Administrators • Web Developers	• 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	**Career Pathway Classes**
• Computer Software Application • Mobile Applications Development • Computer Gaming and Design • Computer Gaming and Design 2 • Introduction to Web Design • Geographic Info Systems (GIS) • IT Internship • Cooperative Work Experience	• Intro to Programming Languages • Programming Essentials • CS Programming • Programming Essentials: Python • Programming Essentials: C++ • Fundamentals of JAVA Programming • Advanced JAVA Programming • Advanced CS Programming • Mobile Applications Development • Computer Gaming and Design • Computer Gaming and Design 2 • Introduction to Web Design • Data Modeling & SQL • CTE AP CS Principles • AP Computer Science Principles • CTE AP CS A • AP Computer Science A • PLTW Cybersecurity • PLTW Computer Science Essentials • PLTW Computer Science Principles • IT Internship • Cooperative Work Experience • Governor's School: Information Technology