

# HORACE HIGH SCHOOL NETWORK SYSTEMS PATHWAY

## Our MISSION

Educating today's learners for tomorrow's world.



## Our VISION

West Fargo Public Schools prepares all learners with the knowledge and skills to be compassionate, contributing citizens in a rapidly changing world. We are dedicated to continuous improvement, engaging every student to become problem solvers and lifelong learners. Excellence is achieved through practices based in research, and by aligning all resources to support learning.

## HIGH-WAGE, HIGH-SKILL, AND HIGH-DEMAND CAREERS

|   |  |
|---|--|
| <b>Information Support &amp; Services</b>     | Database Administrator • Account Manager • Help Desk Specialist • Information Systems Architect • Systems Analyst<br>• Instructional Designer • Testing Engineer           |
| <b>Network Systems</b>                        | User Support Specialist • Network Administrator • Network Engineer • Information Technology Engineer<br>• Network Security Analyst • Telecommunications Network Technician |
| <b>Programming &amp; Software Development</b> | Computer Engineer • Software Applications Specialist • Game Developer • Software Applications Tester<br>• Project Lead • Software Design Engineer                          |
| <b>Web &amp; Digital Communications</b>       | Multimedia Specialist • Web Designer • Web Site Developer • Animator • Blog Developer<br>• Streaming Media Specialist  |

## PROGRAM OF STUDY: NETWORK SYSTEMS

| SUBJECT                                  | 9th Grade   | 10th Grade                                  | 11th Grade              | 12th Grade                    |
|--|---|---|-------------------------|-------------------------------|
| <b>Choice Ready Planning</b>             | Advisory  | Advisory                                    | Advisory                | Advisory                      |
| <b>Language Arts</b>                     | English Language Arts 1   | English Language Arts 2                     | English Language Arts 3 | English Language Arts 4       |
| <b>Math</b>                              | Algebra I   | Geometry                                    | Algebra II              | Precalculus and Trigonometry* |
| <b>Science</b>                           | Biology   | Physical Science                            | Environmental Science   | Elective*                     |
| <b>Social Studies</b>                    | World Geography   | Western Civilization                        | United States History   | Government/Economics          |
| <b>Pathway Courses</b>                   | <b>IT Essentials I &amp; II</b>   | <b>Intro to Networking/Pathway Elective</b> | <b>CISCO I/CISCO II</b> | <b>Helpdesk</b>               |
| <b>PE/Health 9 ELECTIVES 10-12</b>       | Health Physical Education   | PE/Elective                                 | PE/Elective             | Electives                     |
| <b>Recommended Electives: 2 per year</b> | <b>Pathway Electives:</b> Computer Applications (0.5), Web Design (0.5), Publications (1.0), Graphics (0.5), PLTW Engineering Courses (1.0), Intro to Networking, CISCO I (0.5), Intro to Coding (0.5), Computer Programming (0.5), Java I and II (0.5), Mobile App (0.5), Accounting I and II (1.0)<br><b>Global Electives:</b> Foreign Language (1.0), Music (1.0), Art (0.5), Public Speaking (0.5), Physical Education (0.5) or any other pathway elective in another Academy that has seats available. |   |                         |                               |

### Student Leadership and Career and Technical Student Organization(s)

Coding, Cyber Security Help Desk  
e-Sports

### College & Career Experiences – Accessible to ALL Academy Program of Study Students

Community Speakers, Career Interest Inventory, College Application, College & Career Fair, College & Career Research, College and Career Speakers, College Presentations, Job Shadow, Mock Interviews, Personal Statements, Professional Interviews, Scholarship & Financial Aid, Senior Capstone, Ten Year Plan

### Aligned Early Postsecondary Courses – Accessible to ALL Academy Program of Study Students

AP Seminar, AP Research, AP Lang & Comp, AP Lit & Comp, AP Biology, AP Chemistry, AP Environmental Science, AP Physics, Anatomy & Physiology, Microbiology, AP Calculus, College Algebra, Statistics, AP Human Geography, AP European History, AP U.S. History, AP U.S. Gov, AP Microeconomics, CISCO I, AP Computer Programming, IT Essentials I, IT Essentials II, Unmanned Ariel Vehicle

### Professional Certification(s)

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## Information Technology Coordinated Plan of Study – ND Scholarship

### Information Technology Career Cluster

| Course Name                           | Cr   |
|---------------------------------------|------|
| IT Essentials I /II                   | 1    |
| Intro to Networking & Cybersecurity   | .5   |
| CISCO I                               | .5   |
| CISCO II                              | .5   |
| Help Desk Cooperative Work Experience | .5-4 |

### Is This Pathway for You?

- Do you enjoy working with computers?
- Are you curious to learn reasoning and logic to solve complex problems?
- Are you comfortable with situations that are unpredictable and rapidly changing?
- Are you interested in how procedures make machines work?
- Do you like to read technical materials and diagrams and solve technical problems?
- Are you patient when problem-solving to find a solution?
- Do you enjoy working as a team or independently?
- Play video games and figure out how they work.

## North Dakota Information Technology Related Post-Secondary Programs

| Pathway                                       | Certificate or Associate's Degree  | Bachelor's Degree  | Master's Degree or More  |
|---|--|--|--|
| <b>Information Support &amp; Services</b>     | <input type="checkbox"/> Computer Applications (CCCC)<br><input type="checkbox"/> Computer Information Systems (BSC, DCB)<br><input type="checkbox"/> Computer Support Specialist (BSC, TMCC)<br><input type="checkbox"/> Computer Technology/Information Technology (DCB)<br><input type="checkbox"/> Geographic Information Systems Technician (BSC)<br><input type="checkbox"/> Information Systems Administrator (NDSCS)<br><input type="checkbox"/> Information Processing Specialist (BSC)<br><input type="checkbox"/> Information Management (NHSC, RC)<br><input type="checkbox"/> Information Technology (LRSC, NDSCS, RC, SBC, WSC)<br><input type="checkbox"/> IT Forensics (NDSCS)<br><input type="checkbox"/> Management Information Systems transfer (NDSCS) | <input type="checkbox"/> Applied Business Information Technology (MiSU)<br><input type="checkbox"/> Computer Technology Management (DSU)<br><input type="checkbox"/> Information Security (RC)<br><input type="checkbox"/> Management Information Science (UJ)<br><input type="checkbox"/> Information Technology (UJ)<br><input type="checkbox"/> Information Technology Management (RC, UM)<br><input type="checkbox"/> Technology Education (DSU, VCSU) | <input type="checkbox"/> Information Systems (MiSU)<br><input type="checkbox"/> Library/Information Technology (VCSU)<br><input type="checkbox"/> Technology (UND) |
| <b>Network Systems</b>                        | <input type="checkbox"/> Information Management (NHSC, RC)<br><input type="checkbox"/> Information Technology (LRSC, NDSCS, RC, SBC, WSC)  | <input type="checkbox"/> Computer Information Systems (MaSU, UM, VCSU)<br><input type="checkbox"/> Information Systems (UND)<br><input type="checkbox"/> Management Information Systems (NDSU)   | <input type="checkbox"/> Computer Science (NDSU, UND)<br><input type="checkbox"/> Electrical and Computer Engineering (NDSU)                                       |
| <b>Programming &amp; Software Development</b> | <input type="checkbox"/> Computer Science transfer (BSC, NDSCS)<br><input type="checkbox"/> Mobile Application Developer (NDSCS)<br><input type="checkbox"/> Software Application Development (RC)   | <input type="checkbox"/> Computer Engineering (NDSU)<br><input type="checkbox"/> Computer Science (DSU, MiSU, NDSU, RC, UJ, UM, UND)<br><input type="checkbox"/> Electrical and Computer Engineering (NDSU)<br><input type="checkbox"/> Software Engineering (VCSU)  | <input type="checkbox"/> Electrical and Computer Engineering (NDSU)<br><input type="checkbox"/> Software Engineering (NDSU)  |
| <b>Web &amp; Digital Communications</b>       | <input type="checkbox"/> Computer Technology/Webmaster and Web Design (DCB)<br><input type="checkbox"/> Web Design (NDSCS)<br><input type="checkbox"/> Web Developer (NDSCS)<br><input type="checkbox"/> Web Page Development and Design (BSC)<br><input type="checkbox"/> Web Programming (RC)  | <input type="checkbox"/> New Media and Web Design (NDSU)   |  |