



Information Technology Career Cluster

PLAN OF STUDY

<http://pages.minot.k12.nd.us/votech/cte.htm>

<http://www.careerclusters.org>

Name _____

School _____

Date _____



SAMPLE OCCUPATIONS RELATING TO THIS CAREER CLUSTER	
Pathway	Occupations
NETWORK SYSTEMS	Computer Information Systems • Network Administrator • Network Engineer • Network Technician • Network Security Analyst • Telecommunications Network Technician
INFORMATION SUPPORT & SERVICES	Data Administrator • Data Modeler • Help Desk Specialist • Computer Support Specialist • Computer Systems Analyst
INTERACTIVE MEDIA	Multimedia Specialist • Web Designer • Web Site Developer • Animator
PROGRAMMING & SOFTWARE DEVELOPMENT	Computer Programmer • Software Applications Specialist • Computer Software Engineer • Software Applications Tester

MINOT HIGH SCHOOL - SUGGESTED COURSE OF HIGH SCHOOL STUDY						
It is suggested that students consider appropriate dual credit, articulation, or advanced placement opportunities for postsecondary credit.						
Language Arts (four credits required to graduate)	Math (three credits required to graduate)	Science (three credits required to graduate)	Social Studies (three credits required to graduate)	Physical Education (two credits required to graduate)	Minot Public Schools Career & Technical Education and Other Electives (a total of three credits must be earned in foreign language, fine arts, or career and technical education – required to graduate)	Additional Suggested Learning Opportunities
<input type="checkbox"/> Grade 9 Lang Arts* <input type="checkbox"/> Grade 10 Lang Arts* <input type="checkbox"/> Lit of America* <input type="checkbox"/> Composition* <input type="checkbox"/> Speech or Debate* <input type="checkbox"/> Read Improvement <input type="checkbox"/> Basic Writing <input type="checkbox"/> Creative Writing <input type="checkbox"/> Humanities <input type="checkbox"/> Media Literacy <input type="checkbox"/> AP English <input type="checkbox"/> College Composition (D) <input type="checkbox"/> College Speech (D)	<input type="checkbox"/> Intro to Algebra <input type="checkbox"/> Consumer Math <input type="checkbox"/> Algebra* <input type="checkbox"/> Geometry <input type="checkbox"/> Advanced Algebra <input type="checkbox"/> Advanced Math <input type="checkbox"/> Pre-Calculus (D) <input type="checkbox"/> AP Calculus Prep <input type="checkbox"/> AP Calculus <input type="checkbox"/> College Algebra (D) <input type="checkbox"/> Probability & Statistics (D)	<input type="checkbox"/> Physical Science* <input type="checkbox"/> Biology* <input type="checkbox"/> Advanced Biology <input type="checkbox"/> Honors Biology <input type="checkbox"/> Physics <input type="checkbox"/> Advanced Physics <input type="checkbox"/> Chemistry <input type="checkbox"/> Anatomy & Physiology <input type="checkbox"/> AP Chemistry	<input type="checkbox"/> World History* <input type="checkbox"/> U.S. History* <input type="checkbox"/> American Government* <input type="checkbox"/> Sociology <input type="checkbox"/> Economics* <input type="checkbox"/> Criminal Law <input type="checkbox"/> Psychology	<input type="checkbox"/> Physical Education <input type="checkbox"/> Health *Required Courses (D) – Dual Credit 22 Credits are Required to graduate from Minot High School	<input type="checkbox"/> Information Technology Essentials <input type="checkbox"/> Introduction to Programming <input type="checkbox"/> JAVA Programming <input type="checkbox"/> Introduction to Communications Technology <input type="checkbox"/> Emerging Technologies <input type="checkbox"/> Computer Repair/A+ Industry Certification <input type="checkbox"/> Internship for Information Technology <input type="checkbox"/> Networking I (Network Design & Basic Routing) <input type="checkbox"/> Networking II (Switching and WAN Technologies) <input type="checkbox"/> Introduction to Electricity and Electronic Concepts <input type="checkbox"/> Introduction to Computer Applications <input type="checkbox"/> Web Page Design <input type="checkbox"/> Advanced Web Page Design <input type="checkbox"/> Technology & Multimedia Communications <input type="checkbox"/> Desktop Publishing & Creative Design <input type="checkbox"/> Computer Applications – Word/Excel <input type="checkbox"/> Computer Applications – Access/PowerPoint <input type="checkbox"/> Foreign Language <input type="checkbox"/> Aerospace Science I, II, III & IV (JROTC)	School-Based: <input type="checkbox"/> SkillsUSA <input type="checkbox"/> FBLA <input type="checkbox"/> TSA <input type="checkbox"/> Career Research Education <input type="checkbox"/> Cooperative Education <input type="checkbox"/> Internship <input type="checkbox"/> Job Shadowing <input type="checkbox"/> Service Learning Project Community-Based: <input type="checkbox"/> Mentorship <input type="checkbox"/> Volunteer <input type="checkbox"/> Part-time Employment
For a complete listing of course offerings/electives at Minot High School, go to our Registration Guide at: http://pages.minot.k12.nd.us/votech/File/image/RegGuide11-12.pdf						

NORTH DAKOTA APPRENTICESHIP OPPORTUNITIES AND POSTSECONDARY PROGRAMS RELATED TO THIS CAREER CLUSTER				
Pathway	Apprenticeship Opportunities	Associate Degree or Less	Bachelors Degree	Masters Degree or More
NETWORK SYSTEMS	<input type="checkbox"/> Cable Splicer <input type="checkbox"/> Internetworking Technician <input type="checkbox"/> Line Installer/Repairer <input type="checkbox"/> Line Maintainer <input type="checkbox"/> Relay Tester	<input type="checkbox"/> Network Systems (TMCC) <input type="checkbox"/> Information Assurance/Network Security (MiSU-B, NDSCS) <input type="checkbox"/> Computer Information Systems (BJCC, FBCC, LRSC, MiSU-B, NDSCS) <input type="checkbox"/> Database Technology (MiSU-B) <input type="checkbox"/> Information Technology (MaSU, MiSU-B, VCSU)	<input type="checkbox"/> Information Technology (JC) <input type="checkbox"/> Computer Information Systems (MaSU, UM, VCSU)	
INFORMATION SUPPORT & SERVICES	<input type="checkbox"/> Electric Meter Repairer <input type="checkbox"/> Electronics Mechanic <input type="checkbox"/> Instrument Technician <input type="checkbox"/> Line Installer/Repairer <input type="checkbox"/> Line Maintainer <input type="checkbox"/> Protective Signal Installer <input type="checkbox"/> Substation Operator	<input type="checkbox"/> Computer Support Specialist (BJCC, BSC, MiSU-B, NDSCS, WSC) <input type="checkbox"/> Computer Systems Technician (BJCC, MiSU-B, NDSCS, WSC) <input type="checkbox"/> Information Systems (BJCC) <input type="checkbox"/> Operating Systems Technician (MiSU-B)	<input type="checkbox"/> Computer Technology Management (DSU) <input type="checkbox"/> Information Systems (MiSU)	<input type="checkbox"/> Computer Engineer (NDSU)

INTERACTIVE MEDIA		<input type="checkbox"/> Webmaster/Web Designer (BSC, LRSC, MiSU-B, NDSCS, TMCC, WSC)	<input type="checkbox"/> Graphic Design Technology (UND)	
PROGRAMMING & SOFTWARE DEVELOPMENT	For more about Apprenticeships: http://bat.doleta.gov/bat.cfm	<input type="checkbox"/> Computer Science Programming (BSC, LRSC, MiSU, NDSCS, WSC)	<input type="checkbox"/> Computer Science Programming (BSC, DSU, JC, MiSU, NDSU, UND)	<input type="checkbox"/> Software Engineer (NDSU) <input type="checkbox"/> Computer Science Programming (NDSU, UND)

BJCC – Burdick Job Corps Center, BSC – Bismarck State College, DSU – Dickinson State University, FBCC – Fort Berthold Community College, JC – Jamestown College, LRSC – Lake Region State College, MaSU – Mayville State University, MiSU-B – Minot State University – Bottineau Campus, MiSU – Minot State University, NDSCS – North Dakota State College of Science, NDSU – North Dakota State University, TMCC – Turtle Mountain Community College, UM – University of Mary, UND – University of North Dakota, VCSU – Valley City State University, WSC – Williston State College.

April 2011