



STEM 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
SCIENCE & MATHEMATICS	Biological Technician • Biomedical Engineer • Chemical Technician • Chemical Engineer • Ecologist • Environmental Scientist and Specialist • Geologist • Mathematician • Math Teacher • Meteorologist • Science Teacher • Statistician • Zoologist
TECHNOLOGY & ENGINEERING	Architectural Drafting Technician • Aerospace Engineer • Architectural Engineer • CAD Technician • Civil Engineer • Computer Programmer • Construction Management Technician • Electrical Engineer • Mapping Technician • Network Engineer • Simulator Maintenance Technician • Survey Technician • Technology Education Teacher

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 Prep <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"/> Emerging Technologies <input type="checkbox"/> Information Technology Essentials <input type="checkbox"/> Introduction to Programming - JAVA <input type="checkbox"/> Introduction to Electricity & Electrical Concepts <input type="checkbox"/> Design/Drafting <input type="checkbox"/> Engineering Technology <input type="checkbox"/> Introduction to Communications Technology <input type="checkbox"/> Energy & Transportation - Advanced <input type="checkbox"/> Invent It <input type="checkbox"/> How Stuff Works <input type="checkbox"/> Production & Manufacturing Technology <input type="checkbox"/> Skills for Living <input type="checkbox"/> Introduction to Computer Applications <input type="checkbox"/> Computer Repair/A+ Industry Certification <input type="checkbox"/> Foreign Language <input type="checkbox"/> Aerospace Science I, II, III & IV (JROTC)	School-Based: <input type="checkbox"/> SkillsUSA <input type="checkbox"/> TSA <input type="checkbox"/> Career Research <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/RegGuide.pdf						

NORTH DAKOTA POSTSECONDARY PROGRAMS RELATED TO THIS CAREER CLUSTER			
Pathway	Associate Degree or Less	Bachelors Degree	Masters Degree or More
SCIENCE & MATHEMATICS	<input type="checkbox"/> Biotechnology (NDSUS) <input type="checkbox"/> Chemical Technician (no program in ND) <input type="checkbox"/> Electrical Technician (no program in ND) <input type="checkbox"/> Nanoscience Technology (NDSUS)	<input type="checkbox"/> Atmospheric Sciences (UND) <input type="checkbox"/> Biotechnology (NDSU) <input type="checkbox"/> Earth/Environmental Science (MiSU) <input type="checkbox"/> Forensic Science (UND) <input type="checkbox"/> Geology (MiSU, NDSU, UND) <input type="checkbox"/> Math Education (DSU, JC, MaSU, MiSU, NDSU, UM, UND, VCSU) <input type="checkbox"/> Science Education (DSU, MiSU, NDSU, UND, VCSU) <input type="checkbox"/> Statistics (NDSU)	<input type="checkbox"/> Biochemistry (NDSU, UND) <input type="checkbox"/> Biology (NDSU, UND) <input type="checkbox"/> Chemistry (NDSU, UND) <input type="checkbox"/> Mathematics (NDSU, UND) <input type="checkbox"/> Coatings & Polymeric Sciences (NDSU) <input type="checkbox"/> Geographic Information Science (UND)
TECHNOLOGY & ENGINEERING	<input type="checkbox"/> Architectural Drafting & Estimating Technology (NDSUS) <input type="checkbox"/> Construction Management Technology (NDSUS) <input type="checkbox"/> Simulator Maintenance Technician (LRSC) <input type="checkbox"/> Civil Engineering & Surveying Technology (NDSUS) <input type="checkbox"/> Engineering Technician (BSC)	<input type="checkbox"/> Architecture (NDSU) <input type="checkbox"/> Agriculture & Biosystems Engineer (NDSU) <input type="checkbox"/> Civil Engineering (NDSU, UND) <input type="checkbox"/> Chemical Engineering (UND) <input type="checkbox"/> Construction Management & Engineering (NDSU) <input type="checkbox"/> Electrical & Computer Engineering (NDSU, UND)	<input type="checkbox"/> Computer Engineering (NDSU) <input type="checkbox"/> Computer Science Programming (NDSU, UND) <input type="checkbox"/> Environmental Design (NDSU) <input type="checkbox"/> Environmental Engineering (UND) <input type="checkbox"/> Manufacturing Engineering (NDSU) <input type="checkbox"/> Civil Engineering (NDSU, UND) <input type="checkbox"/> Electrical Engineering (NDSU, UND)

		<input type="checkbox"/> Geology & Geological Engineering (UND) <input type="checkbox"/> Industrial & Manufacturing Engineering (NDSU) <input type="checkbox"/> Mechanical Engineering & Applied Mechanics (NDSU, UND) <input type="checkbox"/> Computer Science Programming (BSC, LRSC, MiSU, NDSCS, WSC) <input type="checkbox"/> Technology Education (DSU, UND, VCSU)	<input type="checkbox"/> Technology Education (UND)
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BSC – Bismarck State College, DSU – Dickinson State University, JC – Jamestown College, LRSC – Lake Region State College, MaSU – Mayville State University, MiSU – Minot State University, NDSCS – North Dakota State College of Science, NDSU – North Dakota State University, UM – University of Mary, UND – University of North Dakota, VCSU – Valley City State University, WSC – Williston State College)