



Agriculture, Food & Natural Resources 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
FOOD PRODUCTS & PROCESSING SYSTEMS	Agriculture Sales Representative • Food Scientist • Butcher • Biochemist • Nutritionist Bacteriologist • Food Inspector • Produce Buyer
PLANT SYSTEMS	Geneticist • Soil/Water Specialist • Botanist • Agriculture Lender • Biological Technician • Commodity Marketing Specialist
ANIMAL SYSTEMS	Wildlife Biologist • Animal Nutritionist • Livestock Buyer • Agriculture Technician • Veterinary Assistant • Zoologist • Farmer/Rancher
POWER, STRUCTURAL & TECHNICAL SYSTEMS	Agriculture Equipment Operator • Electrical Engineering Technician • Parts Salesperson • GPS Technician • Communications Technician
NATURAL RESOURCES SYSTEMS	Cartographer • Range Manager • Ecologist • Fish & Game Officer • General Operations Manager • Commercial Fisherman
ENVIRONMENTAL SERVICE SYSTEMS	Pollution Prevention Technician • Hazardous Materials Handler • Water Quality Manager • Toxicologist • Recycler • Waste Technician
AGRIBUSINESS SYSTEMS	Sales Manager • Loan Officer • Ag Economist • Field Representative • Ag Chemical Dealer • Chemical Sales Representative • Ag Products Buyer

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 credit s 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"/> Mathematics Applications <input type="checkbox"/> College Algebra (D) <input type="checkbox"/> Probability & Statistics (D)	<input type="checkbox"/> Physical Science* <input type="checkbox"/> Biology* (Honors Bio) <input type="checkbox"/> Advanced Biology <input type="checkbox"/> Physics <input type="checkbox"/> Advanced Physics <input type="checkbox"/> Chemistry <input type="checkbox"/> Botany/Horticulture/ Plant Science I <input type="checkbox"/> AP Chemistry <input type="checkbox"/> Environmental Science <input type="checkbox"/> Geology	<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"/> Psychology <input type="checkbox"/> North Dakota NOW	<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"/> Introduction to Agriculture <input type="checkbox"/> Animal Care <input type="checkbox"/> Introduction to Ag Mechanics & Technology <input type="checkbox"/> Agri-science Technology <input type="checkbox"/> Agricultural Welding <input type="checkbox"/> Agricultural Engines & General Mechanics <input type="checkbox"/> Game & Meat Processing <input type="checkbox"/> Agriculture Business Sales & Service Careers <input type="checkbox"/> Botany/Horticulture/Plant Science I <input type="checkbox"/> Floral Design (D) <input type="checkbox"/> Landscape Design <input type="checkbox"/> Veterinary Science <input type="checkbox"/> Accounting I & II <input type="checkbox"/> Introduction to Computer Applications	School-Based: <input type="checkbox"/> FFA <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/RegGuide11-12.pdf						

NORTH DAKOTA POSTSECONDARY PROGRAMS RELATED TO THIS CAREER CLUSTER

Pathway	Associate Degree or Less	Bachelors Degree	Masters Degree or More
FOOD PRODUCTS & PROCESSING SYSTEMS		<input type="checkbox"/> Food Safety (NDSU)	<input type="checkbox"/> Food Safety (NDSU) <input type="checkbox"/> Cereal Science (NDSU)
PLANT SYSTEMS	<input type="checkbox"/> Agronomy Technician (WSC) <input type="checkbox"/> Crop & Weed Science (NDSCS, WSC) <input type="checkbox"/> Turf Management (MiSU-B)	<input type="checkbox"/> Turf Management (NDSU) <input type="checkbox"/> Crop & Weed Science (NDSU) <input type="checkbox"/> Soil Science (NDSU)	<input type="checkbox"/> Plant Pathology (NDSU) <input type="checkbox"/> Entomology (NDSU) <input type="checkbox"/> Horticulture (NDSU)
ANIMAL SYSTEMS	<input type="checkbox"/> Equine Studies (NDSU) <input type="checkbox"/> Animal & Range Sciences (WSC)	<input type="checkbox"/> Equine Studies (NDSU) <input type="checkbox"/> Animal & Range Sciences (NDSU)	<input type="checkbox"/> Animal & Range Sciences (NDSU) <input type="checkbox"/> Zoology (NDSU)
POWER, STRUCTURAL & TECHNICAL SYSTEMS	<input type="checkbox"/> Power Plant Technology (BSC) <input type="checkbox"/> Process Plant Technology (BSC) <input type="checkbox"/> Wind Energy Technician (LRSC)		
NATURAL RESOURCES SYSTEMS	<input type="checkbox"/> Water Quality Technology (MiSU-B) <input type="checkbox"/> Biology/Fisheries & Wildlife (NDSCS, WSC) <input type="checkbox"/> Wildlife, Fisheries, Technology/Science (MiSU-B)	<input type="checkbox"/> Biology/Fisheries & Wildlife (NDSU)	<input type="checkbox"/> Natural Resource Mgt (NDSU)
ENVIRONMENTAL SERVICE SYSTEMS	<input type="checkbox"/> Environmental & Conservation Science (FBCC, SBC, WSC) <input type="checkbox"/> Environmental Technology -Geographic Info Systems (MiSU-B)	<input type="checkbox"/> Environmental Geosciences (MIL)	<input type="checkbox"/> Environmental & Conservation Science (NDSU) <input type="checkbox"/> Environmental Engineering (NDSU)
AGRIBUSINESS SYSTEMS	<input type="checkbox"/> Ag Production/Farm/Ranch Management (BSC, DSU, FBCC, LRSC, SBC) <input type="checkbox"/> Ag Business & Management – Sales & Service (BSC, DSU, FBCC, LRSC, SBC)	<input type="checkbox"/> Ag Business & Management- Sales & Service (NDSU)	<input type="checkbox"/> International Agribusiness (NDSU)

BSC – Bismarck State College, DSU – Dickinson State University, FBCC – Fort Berthold Community College, LRSC – Lake Region State College, MIL – Military Service, MiSU-B – Minot State University – Bottineau, NDSCS – North Dakota State College of Science, NDSU – North Dakota State University, SBC – Sitting Bull College, WSC – Williston State College.