



Architecture & Construction 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 |
| DESIGN-PRE-CONSTRUCTION | Estimator • Architectural Draftsman • Architect • Engineer • Safety Professional • Landscape Architect • Civil Engineer |
| CONSTRUCTION | Carpenter • Drywall Installer • Painter • Equipment Operator • Electrician • Plumber • Heating/Ventilation/Air Conditioning • Roofer |
| MAINTENANCE/OPERATIONS | Building Maintenance Technician • Painter • Interior Designer |

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"/> College Algebra (D) <input type="checkbox"/> AP Calculus Prep <input type="checkbox"/> AP Calculus <input type="checkbox"/> Probability & Statistics (D) <input type="checkbox"/> Mathematics Applications | <input type="checkbox"/> Physical Science* <input type="checkbox"/> Biology* <input type="checkbox"/> Physics <input type="checkbox"/> Advanced Physics <input type="checkbox"/> Chemistry <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"/> Criminal Law | <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 Construction Technology <input type="checkbox"/> Construction Technology I <input type="checkbox"/> Construction Technology II <input type="checkbox"/> Emerging Technologies <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 <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"/> World of Work <input type="checkbox"/> Foreign Language | 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/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 |
|-------------------------|--|--|---|---|
| DESIGN-PRE-CONSTRUCTION | | <input type="checkbox"/> Architectural Drafting & Estimating Technology (NDSUS) <input type="checkbox"/> Civil Engineering & Surveying Technology (NDSUS) <input type="checkbox"/> Engineering Technician (BSC) | <input type="checkbox"/> Engineer (NDSU, UND) <input type="checkbox"/> Engineering (NDSU, UND) <input type="checkbox"/> Safety Professional (UND) <input type="checkbox"/> Landscape Architecture (NDSU) <input type="checkbox"/> Civil Engineering (NDSU, UND) | <input type="checkbox"/> Architect (NDSU) <input type="checkbox"/> Structural Engineer (NDSU, UND) <input type="checkbox"/> Civil Engineering (NDSU, UND) |
| CONSTRUCTION | <input type="checkbox"/> Bricklayer (Construction) <input type="checkbox"/> Cabinetmaker <input type="checkbox"/> Carpenter <input type="checkbox"/> Electrician <input type="checkbox"/> Gas-Main Fitter <input type="checkbox"/> Insulation Worker <input type="checkbox"/> Ornamental Iron Worker <input type="checkbox"/> Plumber & Pipe Fitter <input type="checkbox"/> Sheet Metal Worker <input type="checkbox"/> Welder | <input type="checkbox"/> Building Construction Technology (BJCC, FBCC, NDSUS, SBC, TMCC, UTTC) <input type="checkbox"/> Carpentry (BJCC, BSC, CCCC) <input type="checkbox"/> Construction Management Technology (NDSUS) <input type="checkbox"/> Electrical Technology (BSC, NDSUS) <input type="checkbox"/> Plumbing (BJCC, FBCC, NDSUS) <input type="checkbox"/> Heating Ventilation & Air Conditioning (BSC, NDSUS) <input type="checkbox"/> Architectural Drafting & Estimating (NDSUS) <input type="checkbox"/> Mechanical Systems (NDSUS) <input type="checkbox"/> Welder (BSC, FBCC, LRSC, NDSUS, TMCC) | <input type="checkbox"/> Construction Management (NDSU) <input type="checkbox"/> Safety Director (UND) | |
| MAINTENANCE/OPERATIONS | For more about Apprenticeships: http://bat.doleta.gov/bat.cfm | <input type="checkbox"/> Building Maintenance Technician (BJCC) | <input type="checkbox"/> Interior Design (NDSU) | |