

NORTH DAKOTA CAREER RESOURCE NETWORK

CAREER OUTLOOK

27TH EDITION • 2009-2010



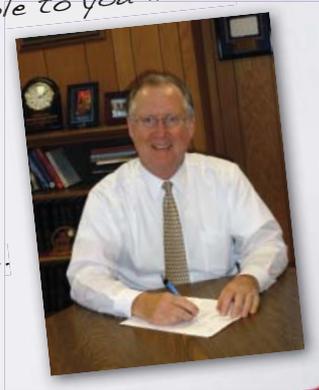
Dear Students:

"What do you want to be when you grow up?" Chances are you have already heard that question more times than you care to recall. I challenge you to instead ask yourself, "What do I want to do next?" You are entering an exciting time in your life - filled with important decisions and vast and varied experiences. Now is the time to begin thinking about your future career. In order to be prepared to meet tomorrow, your planning should begin today.

The goal of Career and Technical Education is to prepare students for success in life. CTE courses offer students the opportunity to explore a wide range of careers through hands-on classroom activities and related work experiences. By enrolling in these and other courses in school, not only are you gaining knowledge, but you are building on the workplace readiness skills necessary to be successful in your chosen career field.

There are so many career options to choose from that the decisions that need to be made may seem, at times, to be overwhelming. This magazine is your window to the resources available to you in our fine state of North Dakota. These resources will help guide you in the process of setting goals as well as planning and preparing for a lifetime of successful learning and earning.

I wish you the best as you continue to prepare yourself for that next step in your life.
Good Luck!



Sincerely,

Wayne Kutzer

Wayne Kutzer, Director

ND Department of Career and Technical Education



ACKNOWLEDGEMENTS

The Career Outlook is a publication of the North Dakota Department of Career and Technical Education's Career Resource Network (CRN).

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Reference to the North Dakota
Department of Career and Technical
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and the Career Outlook is requested.

Distribution

North Dakota Army National Guard

Thank you to all who have
contributed to the production of
this year's Career Outlook.

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Career Clusters Interest Survey

Directions: Check the items in each box that best describe you. You may make as many or as few checks as you choose. Add up the number of checkmarks in each row and place the total in the box at the end of the row. Look to see which three have the highest numbers. Find the corresponding Career Clusters on page 21 to see which Career Clusters you may want to explore.

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number checked <input checked="" type="checkbox"/>
1	<input type="checkbox"/> Learn how things grow and stay alive. <input type="checkbox"/> Make the best use of the earth's natural resources. <input type="checkbox"/> Hunt and/or fish. <input type="checkbox"/> Protect the environment. <input type="checkbox"/> Be outdoors in all kinds of weather. <input type="checkbox"/> Plan, budget, and keep records. <input type="checkbox"/> Operate machines and keep them in good repair.	<input type="checkbox"/> Self-reliant <input type="checkbox"/> Nature lover <input type="checkbox"/> Physically active <input type="checkbox"/> Planner <input type="checkbox"/> Creative problem solver	<input type="checkbox"/> Math <input type="checkbox"/> Life Sciences <input type="checkbox"/> Earth Sciences <input type="checkbox"/> Chemistry <input type="checkbox"/> Agriculture	
2	<input type="checkbox"/> Read and follow blueprints and/or instructions. <input type="checkbox"/> Picture in my mind what a finished product looks like. <input type="checkbox"/> Work with my hands. <input type="checkbox"/> Perform work that requires precise results. <input type="checkbox"/> Solve technical problems. <input type="checkbox"/> Visit and learn from beautiful, historic, or interesting buildings. <input type="checkbox"/> Follow logical, step-by-step procedures.	<input type="checkbox"/> Curious <input type="checkbox"/> Good at following directions <input type="checkbox"/> Pay attention to detail <input type="checkbox"/> Good at visualizing possibilities <input type="checkbox"/> Patient and persistent	<input type="checkbox"/> Math <input type="checkbox"/> Drafting <input type="checkbox"/> Physical Sciences <input type="checkbox"/> Construction Trades <input type="checkbox"/> Electrical Trades/Heat, Air Conditioning and Refrigeration/Technology Education	
3	<input type="checkbox"/> Use my imagination to communicate new information to others. <input type="checkbox"/> Perform in front of others. <input type="checkbox"/> Read and write. <input type="checkbox"/> Play a musical instrument. <input type="checkbox"/> Perform creative, artistic activities. <input type="checkbox"/> Use video and recording technology. <input type="checkbox"/> Design brochures and posters.	<input type="checkbox"/> Creative and imaginative <input type="checkbox"/> Good communicator/good vocabulary <input type="checkbox"/> Curious about new technology <input type="checkbox"/> Relate well to feelings and thoughts of others <input type="checkbox"/> Determined/tenacious	<input type="checkbox"/> Art/Graphic design <input type="checkbox"/> Music <input type="checkbox"/> Speech and Drama <input type="checkbox"/> Journalism/Literature <input type="checkbox"/> Audiovisual Technologies	
4	<input type="checkbox"/> Communicate with different types of people. <input type="checkbox"/> Help others with their homework or to learn new things. <input type="checkbox"/> Go to school. <input type="checkbox"/> Direct and plan activities for others. <input type="checkbox"/> Handle several responsibilities at once. <input type="checkbox"/> Acquire new information. <input type="checkbox"/> Help people overcome their challenges.	<input type="checkbox"/> Friendly <input type="checkbox"/> Decision maker <input type="checkbox"/> Helpful <input type="checkbox"/> Innovative/Inquisitive <input type="checkbox"/> Good listener	<input type="checkbox"/> Language Arts <input type="checkbox"/> Social Studies <input type="checkbox"/> Math <input type="checkbox"/> Science <input type="checkbox"/> Psychology	
5	<input type="checkbox"/> Work with numbers. <input type="checkbox"/> Work to meet a deadline. <input type="checkbox"/> Make predictions based on existing facts. <input type="checkbox"/> Have a framework of rules by which to operate. <input type="checkbox"/> Analyze financial information and interpret it to others. <input type="checkbox"/> Handle money with accuracy and reliability. <input type="checkbox"/> Take pride in the way I dress and look.	<input type="checkbox"/> Trustworthy <input type="checkbox"/> Orderly <input type="checkbox"/> Self-confident <input type="checkbox"/> Logical <input type="checkbox"/> Methodical or efficient	<input type="checkbox"/> Accounting <input type="checkbox"/> Math <input type="checkbox"/> Economics <input type="checkbox"/> Banking/Financial Services <input type="checkbox"/> Business Law	
6	<input type="checkbox"/> Be involved in politics. <input type="checkbox"/> Negotiate, defend, and debate ideas and topics. <input type="checkbox"/> Plan activities and work cooperatively with others. <input type="checkbox"/> Work with details. <input type="checkbox"/> Perform a variety of duties that may change often. <input type="checkbox"/> Analyze information and interpret it to others. <input type="checkbox"/> Travel and see things that are new to me.	<input type="checkbox"/> Good communicator <input type="checkbox"/> Competitive <input type="checkbox"/> Service minded <input type="checkbox"/> Well organized <input type="checkbox"/> Problem solver	<input type="checkbox"/> Government <input type="checkbox"/> Language Arts <input type="checkbox"/> History <input type="checkbox"/> Math <input type="checkbox"/> Foreign Language	
7	<input type="checkbox"/> Work under pressure. <input type="checkbox"/> Help sick people and animals. <input type="checkbox"/> Make decisions based on logic and information. <input type="checkbox"/> Participate in health and science classes. <input type="checkbox"/> Respond quickly and calmly in emergencies. <input type="checkbox"/> Work as a member of a team. <input type="checkbox"/> Follow guidelines precisely and meet strict standards of accuracy.	<input type="checkbox"/> Compassionate and caring <input type="checkbox"/> Good at following directions <input type="checkbox"/> Conscientious and careful <input type="checkbox"/> Patient <input type="checkbox"/> Good listener	<input type="checkbox"/> Biological Sciences <input type="checkbox"/> Chemistry <input type="checkbox"/> Math <input type="checkbox"/> Occupational Health classes <input type="checkbox"/> Language Arts	
8	<input type="checkbox"/> Investigate new places and activities. <input type="checkbox"/> Work with all ages and types of people. <input type="checkbox"/> Organize activities in which other people enjoy themselves. <input type="checkbox"/> Have a flexible schedule. <input type="checkbox"/> Help people make up their minds. <input type="checkbox"/> Communicate easily, tactfully, and courteously. <input type="checkbox"/> Learn about other cultures.	<input type="checkbox"/> Tactful <input type="checkbox"/> Self-motivated <input type="checkbox"/> Works well with others <input type="checkbox"/> Outgoing <input type="checkbox"/> Slow to anger	<input type="checkbox"/> Language Arts/Speech <input type="checkbox"/> Foreign Language <input type="checkbox"/> Social Sciences <input type="checkbox"/> Marketing <input type="checkbox"/> Food Services	

Source: Adapted from the Guidance Division Survey, Oklahoma Department of Career and Technology Education (2005)

Disclaimer: Your interests may change over time. These survey results are intended to assist you with informal career exploration. Consider more formal assessments and other resources or services to help you plan your career.

Note: This survey does not make any claims of statistical reliability and has not been normed. It is intended for use as a guidance tool to generate discussion regarding careers and is valid for that purpose.

	Activities that describe what I like to do:	Personal qualities that describe me:	School subjects that I like:	Total number checked
9	<input type="checkbox"/> Care about people, their needs, and their problems. <input type="checkbox"/> Participate in community services and/or volunteering. <input type="checkbox"/> Listen to other people's viewpoints. <input type="checkbox"/> Help people be at their best. <input type="checkbox"/> Work with people from preschool age to old age. <input type="checkbox"/> Think of new ways to do things. <input type="checkbox"/> Make friends with different kinds of people.	<input type="checkbox"/> Good communicator/good listener <input type="checkbox"/> Caring <input type="checkbox"/> Non-materialistic <input type="checkbox"/> Uses intuition and logic <input type="checkbox"/> Non-judgmental	<input type="checkbox"/> Language Arts <input type="checkbox"/> Psychology/Sociology <input type="checkbox"/> Family and Consumer Sciences <input type="checkbox"/> Finance <input type="checkbox"/> Foreign Language	
10	<input type="checkbox"/> Work with computers. <input type="checkbox"/> Reason clearly and logically to solve complex problems. <input type="checkbox"/> Use machines, techniques, and processes. <input type="checkbox"/> Read technical materials and diagrams and solve technical problems. <input type="checkbox"/> Adapt to change. <input type="checkbox"/> Play video games and figure out how they work. <input type="checkbox"/> Concentrate for long periods without being distracted.	<input type="checkbox"/> Logic/analytical thinker <input type="checkbox"/> See details in the big picture <input type="checkbox"/> Persistent <input type="checkbox"/> Good concentration skills <input type="checkbox"/> Precise and accurate	<input type="checkbox"/> Math <input type="checkbox"/> Science <input type="checkbox"/> Computer Tech/Applications <input type="checkbox"/> Communications <input type="checkbox"/> Graphic Design	
11	<input type="checkbox"/> Work under pressure or in the face of danger. <input type="checkbox"/> Make decisions based on my own observations. <input type="checkbox"/> Interact with other people. <input type="checkbox"/> Be in positions of authority. <input type="checkbox"/> Respect rules and regulations. <input type="checkbox"/> Debate and win arguments. <input type="checkbox"/> Observe and analyze people's behavior.	<input type="checkbox"/> Adventurous <input type="checkbox"/> Dependable <input type="checkbox"/> Community-minded <input type="checkbox"/> Decisive <input type="checkbox"/> Optimistic	<input type="checkbox"/> Language Arts <input type="checkbox"/> Psychology/Sociology <input type="checkbox"/> Government/History <input type="checkbox"/> Law Enforcement <input type="checkbox"/> First Aid/First Responder	
12	<input type="checkbox"/> Perform routine, organized activities but can be flexible. <input type="checkbox"/> Work with numbers and detailed information. <input type="checkbox"/> Be the leader in a group. <input type="checkbox"/> Make business contact with people. <input type="checkbox"/> Work with computer programs. <input type="checkbox"/> Create reports and communicate ideas. <input type="checkbox"/> Plan my work and follow instructions without close supervision.	<input type="checkbox"/> Organized <input type="checkbox"/> Practical and logical <input type="checkbox"/> Patient <input type="checkbox"/> Tactful <input type="checkbox"/> Responsible	<input type="checkbox"/> Computer Applications/Business and Information Technology <input type="checkbox"/> Accounting <input type="checkbox"/> Math <input type="checkbox"/> English <input type="checkbox"/> Economics	
13	<input type="checkbox"/> Work with my hands and learn that way. <input type="checkbox"/> Put things together. <input type="checkbox"/> Do routine, organized and accurate work. <input type="checkbox"/> Perform activities that produce tangible results. <input type="checkbox"/> Apply math to work out solutions. <input type="checkbox"/> Use hand and power tools and operate equipment machinery. <input type="checkbox"/> Visualize objects in three dimensions from flat drawings.	<input type="checkbox"/> Practical <input type="checkbox"/> Observant <input type="checkbox"/> Physically active <input type="checkbox"/> Step-by-step thinker <input type="checkbox"/> Coordinated	<input type="checkbox"/> Math-Geometry <input type="checkbox"/> Chemistry <input type="checkbox"/> Trade and Industry courses <input type="checkbox"/> Physics <input type="checkbox"/> Language Arts	
14	<input type="checkbox"/> Shop and go to the mall. <input type="checkbox"/> Be in charge. <input type="checkbox"/> Make displays and promote ideas. <input type="checkbox"/> Give presentations and enjoy public speaking. <input type="checkbox"/> Persuade people to buy products or to participate in activities. <input type="checkbox"/> Communicate my ideas to other people. <input type="checkbox"/> Take advantage of opportunities to make extra money.	<input type="checkbox"/> Enthusiastic <input type="checkbox"/> Competitive <input type="checkbox"/> Creative <input type="checkbox"/> Self-motivated <input type="checkbox"/> Persuasive	<input type="checkbox"/> Language Arts <input type="checkbox"/> Math <input type="checkbox"/> Business Education/Marketing <input type="checkbox"/> Economics <input type="checkbox"/> Computer Applications	
15	<input type="checkbox"/> Interpret formulas. <input type="checkbox"/> Find the answers to questions. <input type="checkbox"/> Work in a laboratory. <input type="checkbox"/> Figure out how things work and investigate new things. <input type="checkbox"/> Explore new technology. <input type="checkbox"/> Experiment to find the best way to do something. <input type="checkbox"/> Pay attention to details and help things be precise.	<input type="checkbox"/> Detail oriented <input type="checkbox"/> Inquisitive <input type="checkbox"/> Objective <input type="checkbox"/> Methodical <input type="checkbox"/> Mechanically inclined	<input type="checkbox"/> Math <input type="checkbox"/> Science <input type="checkbox"/> Drafting/Computer-Aided Drafting <input type="checkbox"/> Electronics/Computer Networking <input type="checkbox"/> Technical Classes/Technology Education	
16	<input type="checkbox"/> Travel. <input type="checkbox"/> See well and have quick reflexes. <input type="checkbox"/> Solve mechanical problems. <input type="checkbox"/> Design efficient processes. <input type="checkbox"/> Anticipate needs and prepare to meet them. <input type="checkbox"/> Drive or ride. <input type="checkbox"/> Move things from one place to another.	<input type="checkbox"/> Realistic <input type="checkbox"/> Mechanical <input type="checkbox"/> Coordinated <input type="checkbox"/> Observant <input type="checkbox"/> Planner	<input type="checkbox"/> Math <input type="checkbox"/> Trade and Industry courses <input type="checkbox"/> Physical Sciences <input type="checkbox"/> Economics <input type="checkbox"/> Foreign Language	

List your top three Career Clusters of interest (refer to the chart on page 21 for the corresponding Career Clusters):

- 1) _____
- 2) _____
- 3) _____

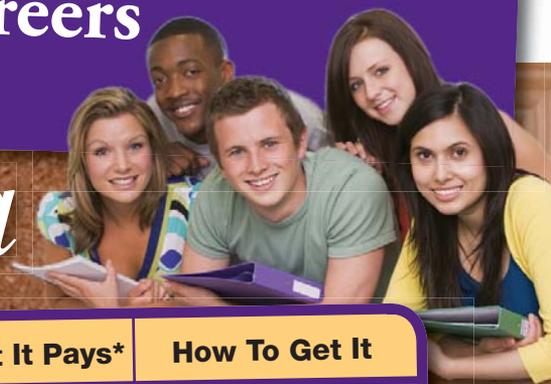
For more information see your career or school counselor, career and technical center, an institution of higher education, Job Service North Dakota, or go to

RUReadyND.com

COOL,

Good-Paying Careers in

NORTH DAKOTA



Your Goal	Cool Career	What It Does	What It Pays*	How To Get It
WORK OUTSIDE	Large power equipment operator.	Operate large equipment at construction sites.	\$37,700	On the job training
	Derrick Operator	Inspect the structures on top of oil and gas well sites.	\$48,000	On the job training
	Forest and Conservation Tech	Train and lead conservation workers.	\$35,000	Associate's degree
SOLVE PROBLEMS	Aircraft mechanic and service technician	Test, maintain and repair aircraft.	\$44,000	Vocational training
	Medical and clinical lab tech	Research ways to control and cure diseases.	\$33,000	Associate's degree
	Electrician	Assemble, install and maintain electrical wiring and equipment.	\$44,000	Long-term on the job training
	Mechanical, Electrical, Industrial Engineer	Read and interpret blueprints, analyze data and coordinate with customers to plan projects.	\$60,000-\$78,000	Bachelor's degree
HELP PEOPLE	Registered Nurse	Monitor all aspects of patient care.	\$51,000	Associate's degree
	Respiratory Therapist	Set up and operate devices for specified treatment.	\$41,000	Associate's degree
	Physical Therapists	Prepare and deliver programs for physical treatment for patients.	\$63,000	Master's degree
	Financial Manager	Process loans, prepare financial statements, coordinate financial planning.	\$74,000	Bachelor's degree plus
PLAY WITH TECHNOLOGY	Computer Support Specialist	Help computer users solve software or hardware problems.	\$32,000	Associate's degree
	Computer Software Engineer	Adapt software to new hardware and upgrade interfaces.	\$68,100	Bachelor's degree
	Radiologic Tech	Operate x-ray equipment, process radiographs and evaluate x-ray images.	\$42,000	Associate's degree
BE YOUR OWN BOSS	Business Owner	Build or launch your own successful business	Varies	Create an idea and get help developing it at www.InnovateND.com

* The salaries listed are based on typical North Dakota wages for this job. These do not indicate starting wages, and typical wage does not reflect overtime pay or bonuses.

EXTENDED LEARNING EXPERIENCES

Extended learning experiences in the community allow you to connect with prospective employers as well as “try out” various career options.

Cooperative (Co-op) Education

Cooperative education is a short-term job placement directly related to a student’s classroom instruction in career and technical education. It is usually the final experience for the student who has “majored” in one occupational preparation program.

Internships

Like Cooperative Education, an internship is a work experience with academic credit, but internships are generally at the post-secondary level. Some internship experiences are paid positions.

Job Shadowing/Mentoring

A Job Shadowing or Mentoring opportunity pairs a student with a person who does the kind of work the student wants to explore. While job shadows generally last 2-8 hours and are typically limited to observing the worker; mentoring is an ongoing relationship between a worker and a student.

Part-Time Jobs/Summer Employment

Work during the summer? Or, work part-time during the school year? Look for work that allows you to try out a career of interest to you.

Service Learning/Volunteer Service

Service Learning and Volunteer Service are unpaid work experiences that focus on meeting a community need.

Summer Career Exploration Opportunities

Each summer career exploration opportunities are offered by business and industry in partnership with secondary and post-secondary institutions.

Work Simulations/School-Based

Businesses

Work Simulations and School-Based Businesses copy the environment and experiences a person might have on the job.

Which of these experiences are of interest to you? For more information, go to www.nd.gov/cte/crn and click on **Extended Learning Experiences** in the Student column. What are you waiting for?
Go Explore!

Registered Apprenticeship

1,000 career opportunities with more than **250,000** employers nationwide.

Call your state apprenticeship office at (701) 250-4700 or visit www.ndapprenticeship.com or www.doleta.gov/oa to learn more about apprenticeship.

- Earn. Learn. Succeed.

**Want a successful career?
Want to further your education without racking up debt?**

Get started on your path to a successful career and enroll in a Registered Apprenticeship program.



REGISTERED
APPRENTICESHIP
Earn. Learn. Succeed.

TAKING THE NEXT STEP

ND Vocational Rehabilitation Can Help With That Next Step to College or the Workforce

The decisions you are making concerning your future could have a life-long impact. Don't let your disability stop you from pursuing your goals. You should, however, consider certain issues when selecting and planning for an appropriate employment goal, including:

- Knowing when and how to discuss your disability with an instructor or employer.
- Determining what questions are appropriate on an application or during an interview.
- Knowing what your rights are under the ADA or Section 504.
- Determining whether modification or accommodations are needed at school or work, and who is responsible for the cost of these items.



North Dakota Vocational Rehabilitation (VR) can help you make an informed choice about your future career plans. To be eligible for VR services, you must:

- Have a disability that affects your ability to find or maintain employment.
- Be able to benefit from services that lead to employment.

If you are eligible, VR will help you to determine an appropriate employment goal. You and your consultant will work together to formulate an Individual Plan for Employment (IPE), which identifies the services you need to achieve your goal.

VR may be able to help a student with a disability transition from high to college:

- by advocating for the services they will need to succeed in college,
- by assisting with services a student needs that are not provided by the institution (i.e. personal aids and devices) and
- by assisting with actual school costs if there is a demonstrated financial need.



Screen-reading and voice-activated software are just a few examples of the types of assistive technology available to eligible clients through NDVR's SOLUTIONS using AT program. Left, the 2nd edition of the TAKING THE NEXT STEP Transition CD includes new sections on transitioning from high school into the workforce.

If a student is transitioning from high school to work, VR may provide:

- job search assistance
- job coaching and placement
- on-the-job training

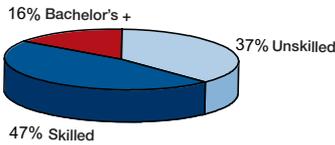
The following resources are available at your regional VR office or our website www.nd.gov/dhs/rcs:

- Helping Students with Disabilities Transition from High School to College or the Workforce. (CD-ROM).
- The Role of ND Vocational Rehabilitation in Transition (Booklet).

Education = Higher Earnings and More Career Choices

Source: Job Service North Dakota, Labor Market Information Center

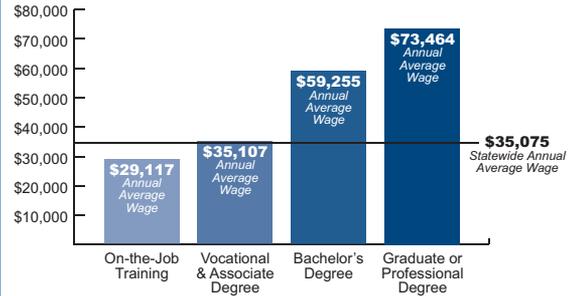
Job Training Requirements	ND 2006 Employment	ND 2016 Projected Employment	ND Average Wages
Unskilled	152,386	162,097	\$24,354
Skilled	192,161	208,595	\$35,392
Bachelor's +	65,075	73,671	\$59,652



Education Pays

North Dakota wages for major training and education requirement categories

Source: Job Service North Dakota, Labor Market Information Center



	Type of Education	Requirements	Examples
Unskilled	Short-term on-the-job training	Typically 30 days or less of on-the-job training or instruction.	Retail Salesperson, Janitor, Farm Worker
Skilled	Moderate-term on-the-job training	Typically 1-12 months of informal training combined with on-the-job experience.	Truck Driver, Team Assembler, Construction Worker
	Long-term on-the-job training	Typically a year or longer on-the-job training or a combination of work experience and formal classroom instruction. This group includes apprenticeships that may last 5 years or longer.	Carpenters, Cooks-Restaurant, Welder
	Postsecondary Vocational (Career & Technical) Education	Some programs last only a few weeks while others may last more than a year. Programs lead to a certificate, diploma or A.A.S. degree.	EMT, LPN, Gaming Dealer, Mechanic
	Associate's Degree (A.A., A.S.)	Completion of the degree usually requires at least 2 years of full-time academic and career and technical study.	Registered Nurse, Computer Software Specialist, Dental Hygienist
Bachelor's Degree or More	Bachelor's Degree	Completion of the degree generally requires at least 4 years, but not more than 5 years, of full-time academic, career and technical study.	Teacher, Elementary or Secondary, Engineers, Accountants
	Bachelor's or higher and some work experience	Most occupations in this category are management occupations. All require experience in a related non-management position for which a bachelor's or higher degree is usually required.	Chief Executive, General Manager, Educational Administrator
	Master's Degree	Completion of the degree usually requires 1 or 2 years of full-time academic study beyond a bachelor's degree.	Rehabilitation Counselors, Librarians, Postsecondary Instructors
	Doctoral Degree	Completion of a Ph.D. or other doctoral degree usually requires at least 3 years of full-time academic study beyond a bachelor's degree.	Postsecondary Teachers, Clinical Psychologists
	First Professional Degree	Completion of the degree usually requires at least 3 years of full-time academic study beyond a bachelor's degree.	Medical Doctors, Clergy, Lawyers

See what tomorrow can bring.

- Research careers, including salaries and projected growth.
- Search for jobs and internships online.
- Get career preparation help, including resume writing and interview skills.

Find your future at your local Job Service office or jobsnd.com.

Your Workforce Connection
JOB SERVICE North Dakota
jobsnd.com

Job Service North Dakota is an equal opportunity employer/program provider. Auxiliary aids and services are available upon request to individuals with disabilities.

There are many branches of the military in the United States of America. Your decision to join one branch or the other is determined largely by patriotism, educational benefits, family tradition, length of enlistment, and much more.



Whatever your reason for joining, your decision should be made with the following in mind.

- What are your goals in life and how can the military help you in reaching these goals?
 - Where do you want to be 10 years from now? 20? 30?
- How long would you like to serve?
 - There are various enlistment options in each branch of the military.

PART-TIME SERVICE — AS A CITIZEN/SOLDIER

Members of the North Dakota Army National Guard are ordinary people just like you. They come from every walk of life and from every part of the state. Members of the North Dakota Army National Guard serve part-time – most serve one weekend a month and two weeks a year. They are able to serve their state, country and community right here in North Dakota while working another full-time job or attending school.

The North Dakota Army National Guard is a disciplined and organized force ready to respond to local and state emergencies and natural disasters as called upon by the Governor of North Dakota. They are also subject to activation by the President of the United States as they are the reserve fighting force for the US Army.

Did You Know?

YOU MAY BE ELIGIBLE TO RECEIVE UP TO \$20,000 IN ENLISTMENT BONUSES? Depending on what Military Occupational Specialty (MOS) when you enlist and when you go to Basic Training you enlist into, you may be eligible for up to \$20,000 in enlistment bonuses.

YOU CAN ATTEND COLLEGE TUITION FREE? The combined Federal and State Tuition Assistance Programs will cover up to 100% tuition at a North Dakota state supported school. Federal Tuition Assistance will be paid directly to the school and will cover a maximum of \$250 per semester hour, plus fees, up to a total of \$4,500 per fiscal year. No funding will be paid on failed, dropped, incomplete classes or cumulative GPA below 2.0. After all Federal Tuition Assistance funds have been utilized, State reimbursement will be available to cover remaining tuition costs. State funded reimbursement will be paid after each semester based on the number of successfully completed credits with a "C" grade (2.0 GPA) or higher. Tuition Assistance is subject to the availability of funds.

YOU CAN RECEIVE A PAYCHECK FOR SIMPLY GOING TO COLLEGE? Students who are eligible can earn up to \$11,844, as a full-time student, under the Montgomery GI Bill. That's \$329 per month. Upon application to the Veterans Administration office, you will be certified to receive non-taxable monthly checks.

YOU CAN RECEIVE AN ADDITIONAL PAY CHECK FOR ATTENDING COLLEGE? Students who are eligible can earn up to \$7,200 (\$200 per month) under the Montgomery GI Bill Kicker, along with the Montgomery GI Bill. The GI Bill Kicker is available only if you choose to enlist into a critical skill and is good for 36 months of study. This money is non-taxable and you are entitled to use this program for up to 14 years.

YOU MAY BE ELIGIBLE TO HAVE THE GUARD TAKE CARE OF ANY OUTSTANDING STUDENT LOANS? This program allows non-prior service and prior service applicants who are eligible to earn up to a \$50,000 student loan repayment for past school loans.

YOU WILL RECEIVE A MONTHLY PAY CHECK FOR ATTENDING DRILLS? Get paid for attending training assemblies. This part-time job can bring you a starting wage between \$10.79 and \$15.23 per hour (E-1 - E-4 rank with less than two years time in service). Working one weekend a month and two weeks a year can really add up!

YOU WILL LEARN A VOCATIONAL SKILL? Receive a vocational education while earning a monthly salary in one of the many career fields the North Dakota Army National Guard has to offer. Some of your military training may even count towards college credits.* You will also learn leadership skills that will help you succeed in your military and civilian careers.

**Check with your education counselor for more details.*

YOU WILL BE AMAZED AT THE ADVENTURES YOU WILL EXPERIENCE? Rappelling, gas chamber, weapons and grenade training, night infiltration and helicopter rides are just a few of the many adventures you can experience in the North Dakota Army National Guard. There are many opportunities to try new and exciting events such as land navigation and compass courses to see where the Army National Guard can take you.

YOU WILL MAKE NEW FRIENDS? Meet new people and make life-long friendships. You will learn team building exercises that will challenge you mentally and physically.

YOU CAN SPLIT YOUR TRAINING? High School Juniors who are at least 17 years of age may enlist and attend Basic Combat Training between their junior and senior year. After graduation you would then complete Advanced Individual Training. Seniors, graduates and seasonal workers may also utilize this program.



1-888-nd-guard
ndarmyguard.com

Learn ABOUT THE Military

The Army, Navy, Air Force, Marines and Coast Guard are all active duty segments of the military. Active duty soldiers serve full-time, similar to working a full-time civilian job. Assignments are available in all 50 states and in countries all over the world. For an active duty soldier, airman, or sailor, length of service can range from two to six years.

What careers and jobs are available?

What are the enlistment benefits?

How do you join?

Find out the basics of each branch of the service
by visiting the following websites:

- **Army:** www.goarmy.com • **Navy:** www.navy.com • **Air Force:** www.airforce.com
- **Marines:** www.marines.com • **Coast Guard:** www.uscg.mil

MILITARY RECRUITERS

AIR FORCE

Bismarck • 701-258-5163
Fargo • 701-277-1818
Grand Forks • 701-775-9361
Minot • 701-839-4635

AIR NATIONAL GUARD

1-800-972-8825

ARMY & ARMY RESERVE

Bismarck • 701-223-5455
Dickinson • 701-227-8669
Fargo • 701-277-1299
Grand Forks • 701-772-2171
Minot • 701-838-7919

ARMY NATIONAL GUARD

1-888-ND-GUARD (1-888-634-8273)
Bismarck • 701-328-9630/9631/9632
Bottineau/Rugby • 701-228-3716
Devils Lake • 701-662-4648/1361
Dickinson • 701-227-7442
Fargo • 701-451-6031/6032
Grand Forks • 701-795-3847/3848
Jamestown • 701-253-3977
Mandan • 701-667-3208
Minot • 701-420-5903/5904

Valley City • 701-845-6762
Wahpeton • 701-671-1507
Williston • 701-774-4327

ASVAB CAREER EXPLORATION PROGRAM

Fargo • 701-234-0072
or 1-800-323-0513

COAST GUARD

1-800-NOW-USCG (1-877-669-8724)
Fargo • 701-235-0954

MARINES

1-800-345-8762
Bismarck • 701-223-3019
Fargo • 701-277-8403
Grand Forks • 701-772-3627
Minot • 701-839-2091

NAVY

1-800-USA-NAVY (1-800-872-6289)
Bismarck • 701-255-4572
Fargo • 701-277-1096
Grand Forks • 701-775-5281
Minot • 701-838-9612

Believe! Achieve!! Succeed!!!



Job Corps is the nation's oldest and most successful job training program for young adults ages 16 through 24. Job Corps has 45 years of success. With career and technical education, high school GED programs, Career Success Standards training and special arrangements for single parents, the Quentin Burdick Job Corps Center serves 250 student employees on an ongoing basis. Students enroll in Job Corps at any time during the year and it's **FREE** to those who qualify.

At Quentin Burdick Job Corps Center student employees join other young adults from North Dakota to learn marketable job skills. During training, student employees receive a modest living allowance, room and board and basic medical and dental care. After graduation, Job Corps staff will help student employees find a job in their chosen field.

So start on the path to your career today.

BELIEVE! ACHIEVE!! SUCCEED!!!

Career and Technical Training

- Advanced Career Training at Minot State University
- Advanced Automotive Repair
- Office Administration
- Carpentry (UBCJA)
- Culinary Arts/Food Service
- Facilities Maintenance
- Health Occupations Training include CNA, LPN and now RN
- Medical Office Support
- Welding

Academic Training

Students who attend Job Corps can obtain their GED and/or High School Diploma. In addition, courses in preparing resumes and sharpening interviewing skills are offered as well as Career Success Standards training and independent living skills. All of the training

is aimed at making students employable and promotable.

Single Parent Program

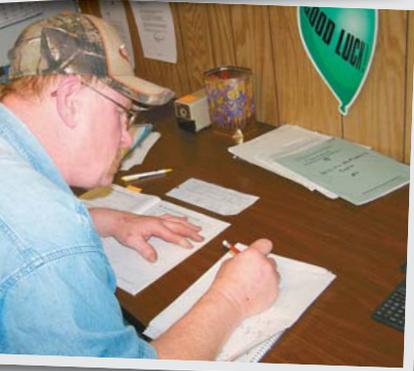
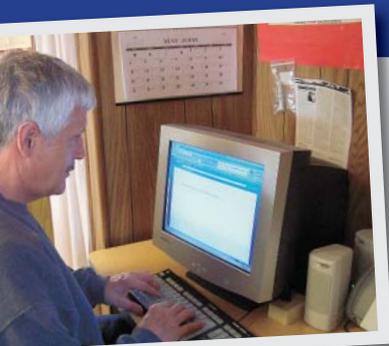
Burdick Job Corps is one of only a handful of Centers nationwide to offer a single parent program. A dorm designed specifically for single parents and their children is right on campus. It allows parents to receive their education while their children are cared for in the Center's Child Development Center, also located right on campus.

For More Information

For more information contact the Outreach and Admissions Office at Burdick Job Corps Center in Minot, ND at 1-701-857-9671 or 9611, or go to the website at quentinnburdick.jobcorps.gov.

Adult Education and Family Literacy

...gives you a second chance!



Adult Learning Centers (ALCs) provide services to help North Dakotans increase knowledge and improve skills essential in today's world. See page 46 for Adult Learning Centers in your area. Although services may vary slightly from site to site, most centers have flexible scheduling and some technical training classes are available:

G.E.D

Prepare for the G.E.D. tests to acquire a high school equivalency diploma.

English Language Learners

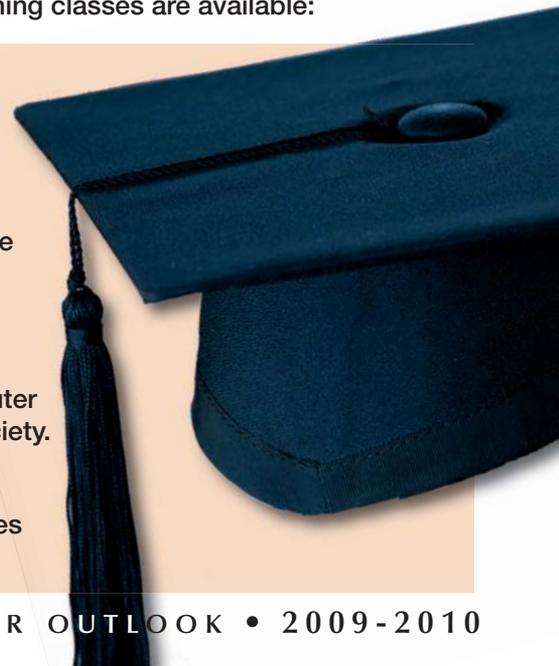
Communicative English classes are available to enable immigrants to function in family, community and work environments.

Academic Skills Review

Learn basic math, reading, writing and computer skills needed for the workplace, family and society.

Career Planning

Most ALCs feature employability skills classes for career and further education planning.



N.D. Postsecondary Education/Training Programs

Program length is indicated by a 1 (less than one year), 1-2 (one - two years), 2 (two years), 4 (four years), 4+ (more than 4 years), G (graduate school), 4G (four years or a graduate program), C (upper-level certificate programs). AA and AS programs are general transfer programs to BS and BA programs. An "A" in the table below indicates that the institution has a recommended AA or AS course of study for students planning on transferring to a bachelor's degree program in this specific field. A student who plans to transfer to another college or university should verify that the institutions have transfer agreements in place and have outlined a recommended course of study in the college catalog. An asterisk (*) indicates the program may also be offered through distance education. M = Military.

BJCC	Burdick Job Corps Center	MOCN	Medcenter One College of Nursing
BSC	Bismarck State College	NDSCS	North Dakota State College of Science
CCCC	Cankdeska Cikana Community College	NDSU	North Dakota State University
DCB	Dakota College at Bottineau	PARR	Pietsch Aircraft Restoration and Repair
DSU	Dickinson State University	RC	Rasmussen College
EATC	Executive Air Taxi Corporation	RDHC	RD Hairstyling College (DBA: JZ Trend Academy)
FBCC	Fort Berthold Community College	SBC	Sitting Bull College
FJC	Fargo Jet Center	SRGSM	Sister Rosalind Gefre Schools and Clinics of Massage
GFKFS	GFK Flight Support	TBC	Trinity Bible College
HAHD	Headquarters Academy of Hair Design	THA	The Hair Academy
JC	Jamestown College	TMCC	Turtle Mountain Community College
JSHD-F	Josef's School of Hair Design - Fargo	TSPA	The Salon Professional Academy
JSHD-GF	Josef's School of Hair Design - Grand Forks	UM	University of Mary
LRSC	Lake Region State College	UND	University of North Dakota
MaSU	Mayville State University	UTTC	United Tribes Technical College
MBC	Moler Barber College	VCSU	Valley City State University
MIL	Military	WFS	Wakefield Flight Services
MiSU	Minot State University	WSC	Williston State College

	BJCC	BSC	CCCC	DCB	DSU	EATC	FBCC	FJC	GFKFS	HAHD	JC	JSHD-F	JSHD-GF	LRSC	MaSU	MBC	MIL	MISU	MOCN	NDSCS	NDSU	PARR	RC	RDHC	SBC	SRGSM	TBC	THA	TMCC	TSPA	UM	UND	UTTC	VCSU	WFS	WSC	
AGRICULTURE, FOOD AND NATURAL RESOURCES																																					
Agribusiness and Applied Economics																					4G																
Agricultural Business & Management		2,A					2							1-2							4																
Agricultural Production/Farm & Ranch Management		2					1							1-2						2																	
Agricultural Science, General			2	A	4								A								4							2								2,A	
Agriculture Sales & Service/Ag Industry & Technology		2			2																																
Agricultural Systems Management																				A	4G																
Agronomy Technician																																					C
Animal Health Management																					C																
Animal & Range Sciences																					4G																A
Biology, Fisheries and Wildlife																				A	4										4					A	
Cereal Science																					G																
Communications, Health/Agriculture/Management																					4																
Crop & Weed Sciences																				A	4																A
Culinary Arts	1													1-2																							
Earth System & Policy																																	G				
Energy Management		4*																																			
Engineering, Environmental																	M				G											G*					
Entomology																					G																
Environmental & Conservation Science							2														G																A
Environmental Geoscience																	M														4						
Environmental Technology					2																																
Environmental Technology/Lab & Field Tech					2																																
Environmental Technology/Water Management					2																																
Equine Studies																					C, 4			1													
Flowershop & Greenhouse Technology					1												M																				
Food and Nutrition/Community Nutrition																					G											4				A	
Food Safety																					4G,C																
Food Science																					4																A
Geographic Information System		1-2		2																																	
Geology																		4			4												4G				
Golf Course Grounds Technology					1																																
Horticulture																																					
Floral Design																																					
Greenhouse Technology					1-2*																																
Landscape Design/Technology					1-2*													M																			
Turf Management					2																																
International Agribusiness																					4																
Natural Resources Management				2	2												M				4G			2													A
Plant Pathology																					4G																
Plant Science/Plant Protection																					G																A
Power Plant Technology		1-2																																			

	BICC	BSC	CCCC	DCB	DSU	EATC	FBCC	FJC	GKFS	HAHD	JC	JSHD-F	JSHD-GF	LRSC	MaSU	MBC	MIL	MISU	MOCN	NDSCS	NDSU	PARR	RC	RDHC	SBC	SRGSM	TBC	THA	TMCC	TSPA	UM	UND	UTTC	VCSU	WFS	WSC			
Special Education/Visual																																							
EDUCATION ADMINISTRATION																																							
Administration/Leadership, Educational																						G									4G	G							
FINANCE																																							
Accountancy				2																		4+										4							
Accounting			2	A	4					4			2	A			4				4		4*							4	4G						2,A		
Accounting & Computing		4*,A		2*			1-2									M												1-2		4							A		
Banking & Finance										4								4		A	C																		
Bookkeeping	1			1*																																			
Business Economics/Economics/Applied Economics				A																																			
Economics/Applied Economic													A																										
Family Financial Planning										4																													
Finance												A																											
Investments																																							
Managerial Finance and Accounting										4																													
HEALTH SCIENCES																																							
Addiction Studies											4							4*																				A	
Administrative Assistant/Health Information Management																				A																		1-2*	
Administrative Assistant/Medical	1	1-2		2*		2												2*		A*			2*																
Advanced Nursing Practice																					G																		
Athletic Training/Corporate Fitness/Human Performance & Fitness																		4		A	4G									4	4							A	
Behavioral Statistics																						4																	
Caregiver Services				1-2*																																			
Child Development & Family Science																						4G																	
Clinical Lab Science		2,A							4				4*			4		4		A	4									4									
Clinical Laboratory Science/Management									4							M	4					4																	
Clinical Laboratory Technician		2,A														M							2																
Communication Sciences & Disorders																																							
Communications, Health/Agriculture/Management																						4																	
Community Health																																							
Conflict Transformation																																							
Couple and Family Therapy																						4G																	
Cytotechnology																M																							
Dental Assisting																						1																	
Dental Hygiene																						2																	
Dietetics																																							
EMT – Paramedic Technology	1	1-2*																																					
Exercise Science/Leisure Studies/Sports Management					4								4																										
Fitness & Wellness													4*																										
Food and Nutrition/Community Nutrition																																							
Gerontology																																							
Health Administration										4								4																					
Health Information/Technician		1-2														M				2*			2*																
Health Information Technology																																							
Health Science				A									A																										
Histotechnician																																							
Massage Therapy		2*																					2			1-2													
Medical Assistant		2*		1-2*												M																							
Medical Coding	1			1*																	1*		1*																
Medical Secretary	1			2*														2*				2																	
Medical Transcription				1*																																			
Medicine (Physicians)													A																										
Mental Health Care Associate																						2																	
Mental Health/Addiction Technician																																							
Nurse Assistant	1	1	1											1																									
Nurse Practitioner/Specialist																																							
Nursing Administration																																							
Nursing, Practical	2	1		1	2																																		

	BJCC	BSC	CCCC	DCB	DSU	EATC	FBCC	FIC	GFKS	HAHD	JC	JSHD-F	JSHD-GF	LRSC	MaSU	MBC	MIL	MiSU	MOCN	NDSCS	NDSU	PARR	RC	RDHC	SBC	SRGSM	TBC	THA	TMCC	TSPA	UM	UND	UTTC	VCSU	WFS	WSC			
Virtual Business																																							
GOVERNMENT AND PUBLIC																																							
Caregiver Services				1-2*																																			
Community Management/Development																						G																	
Eligibility Worker		C																																					
Human Services		2																																					
Nonprofit Leadership																																			C				
Public Administration													A				M																	C, 4G			A		
MANUFACTURING (Const & Manufacturing (NDUS))																																							
Apparel & Textiles/Merchandising																						4G																	
Auto Body Repair		1-2																				2																	
Automotive Technology		1-2	2										1-2									1-2												2			2		
Building Construction Technology		1-2																				2																	
Building Trades																									1-2														
Carpentry, Residential		1	1-2																																				
Caterpillar Dealer Service																						2																	
Construction Management																							4																
Diesel Technology													1-2									2															2		
Electrical Technology		1-2*															M					2																	
Electronics/Telecommunications Technology		1-2																																					
Emergency Management																						A	4G																
Engineering & Surveying Technology, Civil																	M					2*																	
Engineering Technician		2																																					
Fire Technology		1-2																																					
Forensic Science																																				4			
Heating, Ventilation, Air Conditioning and Refrigeration Technology		1-2																				1-2														4G			
Industrial Technology/Mechanical Maintenance Technology		1-2																																					
John Deere Ag Technology																						2																	
Lineworker, Electrical		1-2																																					
Machinist & Tool Maker																						1-2																	
Materials and Nanotechnology																						G																	
Mechanical Systems																						2																	
Mechanics, Automotive		1-2											1-2									1-2																2	
Nanoscience Technology																						2																	
Nuclear Power Technology		1-2*																																					
Occupational Safety & Environmental Health																																				4			
Plumbing																						1																	
Power Plant Technology		1-2*																							2														
Process Plant Technology		1-2*																																					
Recreational Engines Technology																						2																	
Welding		1-2											1									1-2*																	
Wind Energy Technician													1-2																										
MARKETING, SALES AND SERVICE																																							
Advertising and Marketing				1-2							4																												
Apparel & Textiles/Merchandising																						4G																	
Barbering																1																							
Cosmetology									1-2		1	1												1			1												
Esthetician/Skin Care												1																											
Facility Management																						4																	
Interior Design																						4																	
Manicurist/Nail Technician												1																								1			
Marketing/Marketing Management											4		1-2			M	4				2	C												4G	4			1-2,A	
Merchandising																						C,G																	
SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)																																							
SCIENCE, PHYSICAL AND SOCIAL																																							
Aeronautics																																					4		
Airport/Aviation Management																																				4		A	
Anatomy																																					G		
Anthropology																						4															4		
Atmospheric Sciences/Studies																																					4G		
Aviation														A																							G		
Biochemistry										4												4G															G		
Biology			A	4					4				A	4								4G												4	4G		4	A	
Biology, Cell & Molecular																						G																	
Biology, Fisheries and Wildlife																						A	4													4			
Biotechnology																						A*	4														4		
Botany																						4G																	
Chemistry					4				4				A	4								4G													4G		4	A	
Coatings & Polymeric Sciences			A																			G																	
Earth/Environmental Science																						4																A	
Entomology																																						G	
Forensic Science			</																																				

	BICC	BSC	CCCC	DCB	DSU	EATC	FBCC	FJC	GFKFS	HAHD	JC	JSHD-F	JSHD-GF	LRSC	MaSU	MBC	MIL	MISU	MOCN	NDSCS	NDSU	PARR	RC	RDHC	SBC	SRGSM	TBC	THA	TMCC	TSPA	UM	UND	UTTC	VCSU	WFS	WSC			
Molecular Pathogenesis																																							
Pharmacology, Physiology & Therapeutics				A																																			
Physical Science																			4	A																	A		
Physics														A				4			4G													4G			A		
Plant Pathology																					4G																		
Political Science					4					4			A								4												4				A		
Science, General																			G																				
Scientific Computing																																			G				
Social Science				A	4								A	4				4			4G										4		4		4				
Space Studies																																	G						
Transfer/Pre-Professional/University Parallel	2,A			2	2								2							2																	2		
Tribal Environmental Science																																			2				
Zoology																					4G																		
TECHNOLOGY																																							
Automotive Technology		1-2											1-2								1-2																	2	
Biotechnology																					A*	4																	
Building Construction Technology	1-2																				2														2				
Construction Engineering Management																					4																		
Diesel Technology													1-2								2																	2	
Electrical Technology		1-2*																			2																		
Electronics/Telecommunications Technology		1-2																																					
Energy Technician																																							
Engineering and Surveying Technology, Civil																					2					2													
Environmental Technology				2																																			
Environmental Technology/Lab & Field Tech				2																																			
Environmental Technology/Water Management				2																																			
Fire Technology		1-2																																					
Greenhouse Technology				1-2*																																			
Heating, Ventilation, Air Conditioning and Refrigeration Technology		1-2																			1-2																		
Industrial Technology/Mechanical Maintenance Technology				1-2																															4G				
Instrumentation & Control Technology				1-2*																																			
John Deere Ag Technology																					2																		
Landscape Design/Technology				1-2*																																			
Materials and Nanotechnology																																							
Nanoscience Technology																					2																		
Nuclear Power Technology		1-2																																					
Petroleum Production Technology																																							1-2
Power Plant Technology				1-2*																																			
Process Plant Technology				1-2*																																			
Recreational Engines Technology																					2																		
Simulator Maintenance Technology														2																									
Urban Forestry Technology				1-2*																																			
Veterinary Technology																						4																A	
Water Quality Technology				1																																			
Wildlife & Fisheries Technology/Science				2																																4			
ENGINEERING																																							
Engineering and Management, Industrial																	M				4G																		
Engineering, Agricultural & Biosystems																					4G																		
Engineering, Chemical																	M																					4G	
Engineering, Civil																	M				4G																4G		
Engineering, Electrical																	M				4G																G-C		
Engineering, General													A							A	G																A		
Engineering, Geological																	M																				4G		
Engineering, Manufacturing																	M				4G																		
Engineering, Mechanical																					4G																4G		
Engineering Software																					G																		
MATHEMATICS																																							
Applied Math/General										4																												4	
Economics/Applied Economics													A																								4G		A
Materials and Nanotechnology																					G																		
Mathematics				A	4					4		A	4*				4				4G												4	4G	4		A		
Statistics																						C,4G																	
TRANSPORTATION, DISTRIBUTION & LOGISTICS																																							
Aeronautics																																						4	
Airport/Aviation Technology Management																																					4	A	
Auto Body Repair		1-2																			2																		
Automotive Technology		1-2											1-2								1-2																	2	
Aviation						2	2					A											2														G	2	
Caterpillar Dealer Service																					2																		
Commercial Pilot						2	2	2									M						2														2		
Diesel Technology													1-2				M				2																2		
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	Engineers, Physics Applications 35	Medical Records and Health Information Technicians27	Sales Representatives.....34
	Environmental Scientists and Specialists35	Medical Secretaries.....32	Sales Route Drivers.....34
	Excavating and Loading Machine Operators.....23	Medical Transcriptionist.....27	Salespersons, Parts34
	Executive Secretaries and Administrative Assistants.....32	Meteorologists.....35	Salespersons, Retail Trade34
			Scientists, Animal22
			Secretaries, Except Legal, Medical, and Executive32
			Security Guards31
			Self-Enrichment Education Teachers.....25
			Sheet Metal Workers23
			Simulator Maintenance Technician35
			Small Engine Mechanics36
			Social and Community Service Managers26
			Social and Human Service Assistants29
			Social Workers.....29
			Soil and Plant Scientists22
			Speech-Language Pathologists 28
			Stationary Engineers23
			Structural Metal Workers23
			Surgical Technologists28
			Surveying And Mapping Technicians35
			Teacher Assistants25
			Teachers, Vocational Education Secondary School25
			Teachers, Elementary25
			Teachers, Secondary25
			Teachers, Special Education.....25
			Telecommunications Line Installers and Repairers24
			Tellers26
			Tool And Die Makers33
			Training and Development Specialists32
			Travel Agents29
			Veterinarians28
			Veterinary Technicians and Technologists.....28
			Waiters And Waitresses29
			Water Treatment Plant Operators.....2
			Welders And Cutters33
			Writers and Editors.....24
Bakers33	Barbers34	Bill And Account Collectors26	Biological Technicians and Technologists.....35
Biologists22	Bookkeeping and Accounting Clerks26	Bricklayers And Stonemasons...23	Broadcast Technicians24
Bus Drivers36	Butchers and Meat Cutters.....34	Buyers and Purchasing Agents ..34	
Cabinetmakers33	Cardiovascular Technologists.....27	Carpenters23	Cashiers And Checkers.....34
Chefs and Head Cooks29	Chemical Technicians35	Chemists35	Child Care Workers29
Chiropractors.....28	Civil Engineering Technicians33	Clergy.....29	Clerks, Counter And Rental34
Clerks, General Office32	Clerks, Shipping and Receiving..32	Clerks, Stock34	Computer and Information Systems Managers.....30
Computer and Office Machine Repairers30	Computer Operators30	Computer Programmers30	Computer Support Specialist30
Computer Systems Analysts.....30	Conservationist Scientists22	Construction Laborers23	Construction Managers.....23
Correctional Officers31	Cosmetologists and Hairstylists 34	Cost Estimators23	Counselors, Education and Vocational25
Counselors, Rehabilitation.....29	Customer Service Representatives.....32		
Data Base Administrator Assistants27	Dental Hygienists27	Dental Laboratory Technicians ...33	Dentists28
Detectives and Criminal Investigators31	Diesel Mechanics/Bus and Truck Mechanics36		
Dietetic Technicians27	Dietitians and Nutritionists.....28	Dispatchers.....31	Dispensing Opticians27
Drafters23	Drivers, Truck.....36	Dry Wall Installers.....23	
Education Administrators25	Electrical and Electronic Engineering Technicians33	Electrical Power Installers.....23	Electricians23
Electro-Mechanical Technicians 33	Emergency Medical Technicians 27	Engineers, Agricultural35	Engineers, Chemical35
Engineers, Civil.....35	Engineers, Computer Applications30	Engineers, Electrical.....35	Engineers, Energy35
Engineers, Industrial.....35	Engineers, Mechanical35	Engineers, Physics Applications 35	Environmental Scientists and Specialists35
Excavating and Loading Machine Operators.....23	Executive Secretaries and Administrative Assistants.....32		
Faculty Members, Colleges and Universities.....25	Farm and Home Management Advisors25	Farm Equipment Mechanics36	Farmers and Ranchers.....22
Farmworkers.....22	Financial Mangers26	Fire Chiefs.....31	Fire Fighters.....31
Flight Attendants, Airplane36	Food Services Managers29	Forest and Conservation Technicians22	Funeral Directors34
Gaming Dealers29	Grain Elevator Superintendents..22	Graphic Designers.....24	
Health Services Managers28	Health Unit Coordinators27	Heating and Air Conditioning Mechanics23	Heavy Equipment Mechanics36
Home Health Aides.....27	Hosts And Hostesses.....29	Hotel Desk Clerks.....29	Human Resource Managers32
Industrial Machinery Mechanics and Maintenance Workers33	Inspectors and Compliance Officers Except Construction ..26	Instructors, Sports (Coaches).....29	Insurance Adjusters, Examiners, Investigators26
Insurance Sales Agents26	Interior Designers34	Janitors And Cleaners32	
Land Surveyors.....23	Landscaping and Groundskeeping Workers.....22	Lawyers.....31	Legal Assistants (paralegal).....31
Legal Secretaries.....32	Librarians24	Library Assistants24	Livestock Sales Representatives 22
Loan Officers26	Lodging Managers29	Machinists.....33	Maids and Housekeeping Cleaners29
Mail Carriers36	Management Analysts.....32	Marketing Managers34	Massage Therapists27
Mechanical Engineering Technicians33	Medical and Public Health Social Workers.....29	Medical and Clinical Laboratory Technicians27	Medical and Clinical Laboratory Technologists.....28
Medical Assistants27	Medical Records and Health Information Technicians27	Medical Secretaries.....32	Medical Transcriptionist.....27
Meteorologists.....35			
Network and Computer Systems Administrators30	Network and Data Communications Analysts30	News Analysts, Reporters and Correspondents.....24	Nurse Practitioners.....28
Nursery and Greenhouse Managers22	Nurses Aides, Orderlies, Including Cert. Nurse Aide27	Nurses, Licensed Practical27	Nurses, Registered.....27
Occupational Therapists28	Occupational Therapy Assistants27	Office Managers32	Operating Engineers/ Construction Equipment Operators23
Optometrists.....28			
Personal and Home Care Aides..29	Pharmacists.....28	Pharmacy Technicians27	Photographers.....24
Physical Therapists28	Physical Therapy Aides and Assistants27	Physician Assistants28	Physicians.....28
Plumbers and Pipefitters23	Police and Sheriff's Patrol Officers.....31	Police Chiefs.....31	Postmasters.....36
Power Plant Operators.....22	Prepress Occupations.....24		

How To Use The Occupational Section

	1 Occupational Title/Description	2 Related Occupations	3 Nat'l Employment ND Employment \$ND Earnings	4 Holland Type Rating	5 Hiring Practices
Agriculture	Postsecondary Programs – Associate Degree Or Less				
	Agricultural Inspectors (M) Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.	Consumer Safety Inspectors, Food & Drug Inspectors	16,200↘ 133 / 6→ \$23,000 - 45,200	Realistic HW HS	Many require a college degree in addition to experience and successful scores on an examination. Knowledge of horticulture, livestock, and commodities helpful. Hired by federal, state and local governments. Not an entry level position.
	Postsecondary Programs - Bachelors Degree or More				
	Biologists (M) Conduct research to gain information about the origin, development, anatomy, and other basic principles of plant and animal life. May specialize in one aspect of biology, such as embryology, botany, microbiology, wildlife, etc.	Environmental Scientist, Foresters, Range Managers, Soil Scientists	20,100→ 109 / 3→ \$43,500 - 62,200	Investigative HW HS	A four-year degree or a graduate degree is required. May sell, inspect, conduct research, or teach. Nationally over one-half are hired by the government. A Ph.D. is generally required for college teaching and independent research.

- Occupational Title** - the most commonly used title for the occupation and a description that provides a general idea of the tasks associated with this occupation. The (M), just after the title, indicates that this occupation exists in the military.
- Related Occupations** - A listing of occupations that are similar in work performed on the job.
- Nat'l Employment ND Employment \$ND Earnings** - National Employment indicates the number of persons employed in this occupation in the United States. ND Employment indicates the number of persons employed in this occupation in North Dakota with the projected number of job openings each year shown after the slash. The arrows indicate the projected growth of this occupation for the nation and for North Dakota:
 Much faster than average ↑ (Over 3.6% per year); Stable → (0-1.9% per year); and
 Faster than average ↗ (2-3.5% per year); Declining in employment ↘ (Less than 0% per year).
 ND Earnings is a range of salaries for those employed in the occupation in the State. Some salaries will have a "US" at the end, which indicates that North Dakota salaries were not available, so a national average was used.
- Holland Type Rating**
Artistic: Artistic occupations frequently involve working with forms, designs and patterns. They often require self-expression, and the work can be done without following a clear set of rules.
Conventional: Conventional occupations frequently involve following set procedure and routines. These occupations can include working with data and details more than ideas. Usually there is a clear line of authority to follow.
Enterprising: Enterprising occupations frequently involve starting and carrying out projects. These occupations can involve leading people and making decisions. Sometime they require risk taking and often deal with business.
Investigative: Investigative occupations frequently involve working with ideas and require an extensive amount of thinking. These occupations can involve searching for the facts and figuring out problems mentally.
Realistic: Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals and real-world materials like wood, tools and machinery. Many of the occupations require working outside and do not involve a lot of paperwork or working closely with others.
Social: Social occupations frequently involve working with, communicating with, and teaching people. These occupations often involve helping or providing service to others.
- Rating**
HW: High Wage - North Dakota entry annual salary at least \$31,000
HD: High Demand - Occupation has a very high number of annual openings and/or is a fast growing occupation in North Dakota.
HS: High Skill - Occupation requires at least one year of post high school education or training.
- Hiring Practices** - Information or hints to enhance opportunities for entering this occupation. Preferred specific training, minimum requirements, preferred experiences, required licensing, and types of businesses employing the occupation are given. Three cross-references are provided to assist in locating additional information on the occupation.

Occupational Information Section

The occupational and related information in the Career Outlook is broken into sixteen Career Clusters, listed below. You are encouraged to use the Career Clusters Interest Survey on pages 4 and 5 or in RUReadyND.com to help identify the cluster or clusters most closely related to your personal preferences and interests.

Career Cluster	PG	Career Cluster	PG	Career Cluster	PG
1. Agriculture, Food & Natural Resources	P. 22	7. Health Science	P. 27	13. Manufacturing	P. 33
2. Architecture & Construction	P. 23	8. Hospitality & Tourism	P. 29	14. Marketing	P. 34
3. Arts, A/V Technology & Comm.	P. 24	9. Human Services	P. 29	15. Science, Technology, Engineering & Mathematics	P. 35
4. Education & Training	P. 25	10. Information Technology	P. 30		
5. Finance	P. 26	11. Law, Public Safety, Corrections & Security	P. 31	16. Transportation, Distribution & Logistics	P. 36
6. Government & Public Administration	P. 26	12. Management & Administration	P. 32		

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs – Associate Degree Or Less				
Agricultural Inspectors (M) Inspect agricultural commodities, processing equipment, and facilities, and fish and logging operations, to ensure compliance with regulations and laws governing health, quality, and safety.	Consumer Safety Inspectors, Food & Drug Inspectors	16,200↘ 110 / 6→ \$20,400 - 34,500	Realistic HW HS	Many require a college degree in addition to experience and successful scores on an examination. Knowledge of horticulture, livestock, and commodities helpful. Hired by federal, state and local governments. Not an entry level position.
Farmers and Ranchers Plan and direct livestock production and/or crop rotation practices to maximize production. Plant, cultivate, and market crops. Care for and market livestock, supervise farm workers. Own or rent land for farming operation.	Park Rangers, Wildlife Biologists, Foresters, Farm Manager	1,058,000↘ 25,500 / 150↘ \$NA - NA	Realistic HD HS	Past experience and growing up on a farm enhance success in the occupation. Some larger farms hire farm managers to oversee farm operations. Many farms and ranches are managed by several family members.
Farmworkers Plant, cultivate, spray, irrigate, and harvest crops. Care for animals and poultry. Operate farm machinery. Prepare crops for marketing. Repair farm buildings and fences.	Groundskeepers, Park Rangers, Wildlife Technicians, Farmers	769,400↘ 10,813 / 313↘ \$16,400 - 23,900	Realistic HD	Many are trained on the job. Can be seasonal work in North Dakota. Must be able to do work that requires lifting, climbing, and bending.
Forest and Conservation Technicians Compile data on characteristics of forest tracts, under direction of forester; train and lead forest workers in tree propagation, fire prevention and suppression. May assist conservation scientists in managing rangelands and wildlife habitats.	Park Rangers, Foresters, Farmers, Ranchers, Fish and Wildlife Technicians	33,800↘ 200 / 6→ \$26,300 - 42,500	Realistic HW HS	Most employers require vocational training. Must like working outdoors. Hired by the federal, state, or local government.
Grain Elevator Superintendents Coordinate and supervise workers in loading, storing, unloading, cleaning, and blending grains for milling and shipment. Inspect grain.	Purchasing Agents, Grain Buyers	16,000→ 280 / 8→ \$37,500 - 68,600	Enterprising HW HS	Most superintendents have 15 or more years experience in elevator work as assistants or laborers before becoming superintendents. Wages vary depending upon size and location of elevator and whether it is privately owned or a co-op.
Landscaping & Groundskeeping Workers Landscape or maintain grounds of property using hand or power tools or equipment. Work may include: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.	Farm Workers, Farmers, Forestry Technicians	1,220,100→ 1,830 / 80→ \$16,300 - 28,700	Realistic HD	Training is available on the job or through a vocational program. Knowledge of horticulture is helpful. Must like working outdoors and be able to do physical labor.
Livestock Sales Representatives Sell cattle, horses, hogs, and other livestock to packing houses, farmers, or other purchasers. Review current market, and inspect livestock to determine value.	Grain Buyers, Real Estate Agents, Insurance Agents	NA** N/A / N/A** \$N/A - N/A	Enterprising HS	Training ranges from high school diploma to a four-year college degree. Experience working with cattle and knowledge of various breeds necessary. Good communication skills essential.
Nursery and Greenhouse Managers Plan, organize, direct, control, and coordinate activities of workers engaged in propagating, cultivating, and harvesting horticultural specialties, such as trees, shrubs, flowers, mushrooms, and other plants.	Forestry Technicians, Lawn Service Workers, Groundskeepers	201,800→ 190 / 6→ \$26,800 - 43,500	Enterprising HW HS	Training is available on the job or through a vocational program. Knowledge of horticulture important. Must like working outdoors.
Power Plant Operators (M) Control, operate or maintain machinery to generate electrical power.	Boiler Operators, Stationary Engineers, Water Treatment Plant Operators	34,800↗ 142 / 4↘ \$56,800 - 68,100	Realistic HW HS	Preference is given to those who have completed formal apprenticeship or vocational training. Good mechanical aptitude and mathematics skills are necessary. Hired by generating plants.
Roustabouts Assemble and repair oilfield machinery and equipment. Dig holes, set forms, pour cement to make derrick foundations. Dismantle and assemble boilers. Use handtools and power tools.	Derrick Operators, Rotary Drillers	44,100↘ 940 / 33h \$34,200 - 47,700	Realistic HD HW HS	Trained on the job. Working in heights in excess of 15 feet may be necessary. Shift work common. Must be able to lift heavy objects and work outdoors. Hired by oil drilling companies.
Water Treatment Plant Operators (M) Operate or control an entire process or system of machines, often through control boards, to transfer or treat water or liquid waste.	Boiler Operators, Powerplant Operators, Stationary Engineers	110,800→ 470 / 23→ \$25,500 - 43,300	Realistic HD HW HS	Need mechanical aptitude and basic math skills. Many are trained on the job; however, formal training may increase job opportunities. Hired by local government or chemical manufacturing companies.
Postsecondary Programs - Bachelors Degree or More				
Biologists (M) Conduct research to gain information about the origin, development, anatomy, and other basic principles of plant and animal life. May specialize in one aspect of biology, such as embryology, botany, microbiology, wildlife, etc.	Environmental Scientist, Foresters, Range Managers, Soil Scientists	20,100→ 90 / 3→ \$40,000 - 57,800	Investigative HW HS	A four-year degree or a graduate degree is required. May sell, inspect, conduct research, or teach. Nationally over one-half are hired by the government. A Ph.D. is generally required for college teaching and independent research.
Conservationist Scientists Manage, improve & protect natural resources to maximize their use without damaging the environment. May conduct soil surveys & and develop plans to reduce soil erosion.	Agricultural Scientists, Agronomists, Horticulturists, Soil Scientists, Farmers	19,800→ 225 / 7→ \$40,700 - 60,200	Investigative HW HS	Minimum requirement is four-year degree. Some are hired by extension services or local and state government. Others may teach at universities or work in private industry.
Scientists, Animal Conduct research in selection, breeding, feeding, management and marketing of beef, horses, and other animals. Develop improved practices in feeding, housing, sanitation, and disease control. Control breeding practices to improve strains of animals.	Soil Scientists, Biochemists, Environmental Scientist, Animal Health Technologist	5,400→ NA / NA** \$NA - NA	Investigative HW HS	Minimum of B.S. and a higher degree (M.S. or Ph.D.) required for advancement and administrative positions. Ability to work independently and communicate effectively essential. May be hired by private or government sector.
Soil and Plant Scientists Conduct research in breeding, physiology, production, yield, and management of crops and agricultural plants, their growth and control of pests or study the chemical, physical, biological, and mineralogical composition of soils. May classify and map soils and investigate effects of alternative practices on soil and crop productivity.	Biochemists, Life Scientists, Foresters, Plant Physiologist, Environmental Scientist	15,800→ 130 / 2→ \$30,400 - 56,400	Investigative HW HS	Education requirements range from four-year degree to Ph.D. depending on the employment needs and industry. Nationally over one-half are hired by the government. Must be able to work independently or as part of a team. Written and oral communications essential.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Bricklayers And Stonemasons (M) Lay bricks, stone, concrete and set cinder blocks to build and repair walls, boilers, furnaces, and other structures. Use chisels, hammers, trowels, levels, and other tools.	Cement Masons, Plasterers, Tilesetters	158,300→ 220 / 9→ \$35,000 - 56,800	Realistic HW HS	Employers prefer applicants with formal, apprenticeship training, or experience. Ability to visualize objects in 2 or 3 dimensions is necessary. Seasonal work. Hired by contractors. May be self-employed.
Carpenters (M) Build and install structures and frameworks made mainly of wood. May build houses, barns, and other buildings. May do the finish work or may do the rough carpentry work. Use a variety of power and hand tools. May do repair work.	Cabinet Makers, Electricians, Plasterers, Plumbers	1,462,100→ 2,420 / 90→ \$25,300 - 35,700	Realistic HD HW HS	Preference may be given to applicants who have completed vocational or apprenticeship training program. The demand for carpenters is dependent on the construction activity. In North Dakota, carpentry work can be seasonal. May be self-employed.
Construction Laborers Perform tasks involving physical labor at building, highway, and heavy construction projects, tunnel and shaft excavations, and demolition sites. May operate hand and power tools. May clean & prepare sites.	Carpenter, Brick Mason	1,232,000→ 2,410 / 43→ \$22,300 - 30,400	Realistic	For some construction laborer jobs, employers hire people without experience or specific training. However, the work requires more strength and stamina than most occupations.
Construction Managers Plan, organize, direct, and coordinate through subordinate personnel activities concerned with erection, alteration, maintenance, and repair of structures, facilities, and systems such as houses, office buildings, bridges, roads, and similar structures.	Construction and Building Inspectors, Civil Engineers, Architects	487,100→ 530 / 17→ \$45,300 - 92,400	Enterprising HD HW HS	B.S. degree in construction management can greatly enhance one's opportunities in this occupation. Experience in construction trades is also important.
Cost Estimators Prepare cost estimates for product manufacturing, construction projects or services to aid management in bidding or determining price of product or service.	Construction Managers; Architectural Drafters	221,100→ 670 / 27↗ \$32,000 - 54,100	Conventional HD HW HS	Over half work in the construction industry. Job prospects should be best for those with industry work experience & a bachelor's degree in a related field.
Drafters (M) Prepare drawings from designers' sketches and specifications for purposes such as manufacture and installation of machinery and equipment or for construction of buildings, dams, bridges, roads, and other projects. Prepare maps and charts.	Architects, Engineering Technicians, Landscape Architects	228,700→ 460 / 24→ \$25,800 - 41,500	Realistic HW HS	Employers prefer formal drafting and training. Good finger dexterity and visual perception are important. Must be able to communicate with others and follow verbal and written instructions. Computer skills essential.
Dry Wall Installers Apply plasterboard or other wallboard sheets to ceiling and interior walls. Fill the joints between dry-wall sheets with plaster and prepare the walls for painting. Work from ladders, scaffolds, or stilts.	Carpenters, Insulation Workers, Floor Covering Installers	185,900→ 260 / 10→ \$27,200 - 38,800	Realistic	Employers seek applicants who have completed apprenticeship training or have experience. Some may train on the job. This occupation is dependent on the construction industry and may be seasonal. Employers look for experienced workers. May be self-employed.
Electrical Power Installers (M) Install or repair cables or wires used in electrical power distribution systems. May erect poles and light or heavy transmission towers.	Electricians, Air-Conditioning Installers, Telephone/Cable TV Installers/Repairers	112,200→ 600 / 20→ \$39,600 - 64,700	Realistic HW HS	Power companies may train employees or may prefer an experienced or vocationally trained applicant. Must be willing to work outdoors in all kinds of weather. Hired by power companies, construction companies.
Electricians (M) Install, maintain and repair electrical wiring, equipment and fixtures. Ensure that work is in accordance with relevant codes.	Air Conditioning Mechanics, Telephone/Cable TV Installers/Repairers	705,000→ 1,920 / 66→ \$29,500 - 51,800	Realistic HD HW HS	Many employers prefer a graduate of a vocational or apprenticeship program. Must be able to read blueprints and use tools required in electrical circuit installation and repair. Hired by contractors, utility companies, and government. May be self-employed.
Excavating & Loading Machine Operators Operate or tend machinery equipped with scoops, shovels or buckets to excavate & load loose materials.	Maintenance Mechanics, Truck Drivers, Operating Engineers	80,200→ 437 / 16→ \$28,100 - 53,100	Realistic HW	Trained on the job or through vocational or apprenticeship programs. Should have average mechanical ability. Must be willing to work outdoors and work irregular hours.
Heating and Air Conditioning Mechanics (M) Install or repair heating, central air conditioning or refrigeration systems, including oil burners, hot-air furnace and heating stoves.	Boilermakers, Electrical Appliance Servicers, Plumbers, Sheet Metal Workers	291,900→ 530 / 36↗ \$32,400 - 55,400	Realistic HD HW HS	Employers prefer applicants with vocational training or apprenticeship program completion. Mechanical ability and the ability to make decisions accurately are important. Hired by contractors. May be self-employed.
Operating Engineers/Construction Equipment Operators (M) Operate construction equipment, such as graders, bulldozers, scrapers, pumps, derricks and front-end loaders.	Mining Machine Operators, Truck Drivers	424,200→ 2,790/ 75→ \$28,000 - 47,100	Realistic HD HW HS	Trained on the job or through vocational programs. Should have average mechanical ability. Must be willing to work outdoors and work irregular hours.
Plumbers & Pipefitters (M) Build and repair water, waste disposal, and gas systems in homes and other buildings. Install plumbing fixtures, appliances, and heating and cooling systems. Use hand and power tools.	Heating and Air Conditioning Mechanics, Carpenters	502,200→ 890 / 35→ \$28,900 - 49,900	Realistic HD HW HS	Many employers require either past experience or formal apprenticeship training. Hired by construction companies. May be self-employed. License required.
Sheet Metal Workers (M) Fabricate, assemble, install and repair sheet metal products and equipment, such as ducts, drainpipes and furnace casings.	Heating & Air Conditioning Mechanics, Iron Workers	188,700→ 440 / 25↗ \$26,900 - 42,700	Realistic HD HW HS	Employers prefer applicants who have completed an apprenticeship or vocational training. Should have above average ability to visualize objects of 2 or 3 dimensions and mechanical ability. Hired by air conditioning and heating contractors.
Stationary Engineers (M) Operate and maintain stationary engines and mechanical equipment such as steam engines, air compressors, generator turbans, and steam boilers that provide power for heating, cooling, and ventilation in factories and buildings.	Power Station Operators, Refinery Operators, Water Treatment Plant Operators	45,400→ 140 / 3→ \$30,300 - 53,300	Realistic HW HS	Employers prefer applicants from formal vocational or apprenticeship programs. May receive training on the job and move up to stationary engineers from boiler operating position. Hired by factories, hospitals, schools, and power stations.
Structural Metal Workers Raise, place and unite iron or steel girders, columns and other structural members to form structures or structural frameworks.	Form Builders, Carpenters, Welders	71,700→ 250 / 7→ \$30,200 - 43,900	Realistic HW HS	Employers prefer applicants with formal apprenticeship training. Some may train on the job. Most work outside in all kinds of weather. Hired by general contractors, steel erection contractors, and ornamental iron contractors.
Postsecondary Programs - Bachelors Degree or More				
Architects (M) Design buildings, develop plans, specifications and detailed drawings. Prepare scale and full size drawings. Arrange contracts and exercise supervision over construction. Consult with engineers and other specialists.	Mechanical Engineer, Architectural Drafter, Landscape Architect	129,000→ 250 / 5↗ \$37,500 - 65,900	Artistic HD HW HS	Graduation from a five-year program in architecture is the minimum requirement for employment. Job availability depends on the construction industry. Must be creative, artistic, perceptive, and be able to work independently. Must be licensed.
Architects, Landscape Design housing areas, public parks, shopping centers, etc., so that areas are useful and beautiful. Plan location of buildings, roads, walks, and arrangement of vegetation and open space. Prepare site plans, specifications and cost estimates.	Landscape Drafter, Architect, Golf Course Designer	27,800→ N/A / N/A→ \$37,000 - 50,000	Artistic HW HS	Graduation from five-year program is the minimum requirement. Must be creative and have artistic talent. This occupation is dependent upon the construction industry. Must be able to work independently.
Land Surveyors (M) Make exact measurements and determine property boundaries. Provide data relevant to shape, contour, gravitation, location, elevation, or dimension of land or land features.	GIS Specialist, Geologists, Civil Engineer, Engineering Technician	60,000↗ 250 / 10↗ \$20,100 - 54,700	Investigative HW HS	Training may range from two to four-year degree. Must be able to visualize and understand objects, distances, sizes and other abstract forms. Must be accurate and quick with mathematical calculations.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Broadcast Technicians (M) Operates and maintains radio transmitter to broadcast radio and television programs. Monitors signal transmission. Test, repair, and maintain broadcast equipment.	Engineering Technicians, Electronic Technologist	34,900→ 160 / 4→ \$19,600 - 36,300	Realistic HS	Most employers prefer formal training in communications. A wide knowledge of electronic principles and the ability to use test equipment is necessary. Must pass a written examination.
Library Assistants Compiles records, and sorts and shelves books. Issues and receives library material such as books, films, periodicals and records, assists patrons in finding selections.	Title Searchers, Reservation Clerks, Secretaries	121,300→ 297 / 13→ \$17,600 - 28,000	Conventional HS	Increasingly more libraries are hiring assistants with some college training due to the need to hire technically trained individuals. Some require an associate degree in library science.
Photographers (M) Use artistic and special effects. Arrange and prepare subject matter. Set-up photographic equipment. Photograph subject using still camera and a variety of photographic accessories.	Floral Designers, Graphic Designers	122,500→ 270 / 10→ \$19,700 - 35,300	Artistic HS	Training ranges from high school to four-year degree. Technical understanding of photography necessary. Hired by commercial art studios, newspapers, magazines, or may be self-employed.
Prepress Occupations (M) Skills include paste-up, electronic page layout, camera operation, typesetting, and platemaking. Workers may specialize in one skill, but most employers require skills in all areas.	Graphic Designer, Computer Operators, Printing Press Operators	70,900↘ 150 / 4↘ \$15,400 - 31,400	Realistic HS	Employers prefer postsecondary (vocational-technical) training. Must be in good physical condition. Manual dexterity and ability to pay attention to detail are important qualities.
Printing Press Operators (M) Set up or operate various types of printing machines, such as offset, letterset, or screen printers to print on paper or other materials.	Photoengravers, Electrotypers, Pre-Press Occupations	197,600↘ 230 / 9→ \$20,100 - 35,000	Realistic	Mechanical aptitude is important in making machine adjustments. Ability to visualize color is essential for work on color presses.
Radio and Television Announcers (M) Introduce various types of programs. Interview guests. Act as a master of ceremonies. Read news bulletins and make other announcements. Broadcast weather, traffic conditions, and other information.	Sportscasters, Narrators, Disc Jockey	58,900↘ 400 / 9↘ \$16,700 - 38,900	Artistic HS	Particular attention is given to taped auditions, appearance, style on television, and voice quality. Correct English usage is essential and knowledge of current events is important.
Telecommunications Line Installers and Repairers (M) String and repair telephone & cable television cable, including fiber optics and other equipment for transmitting messages or television programming.	LAN Technicians, Electricians, Sound Technicians, Electronics Technicians	162,300→ 330 / 15→ \$26,600 - 44,700	Realistic HW HS	Good eyesight and color discrimination necessary. Mechanical, electronic, and computer background essential. Most are hired by telephone and cable TV companies.
Postsecondary Programs - Bachelors Degree or More				
Graphic Designers (M) Design or create graphics to meet a client's specific commercial or promotional needs, such as packaging, displays or logos.	Webpage Designers, Photographers, Medical Illustrator	260,800→ 560 / 16→ \$25,400 - 35,900	Artistic HS	Most employers prefer training in art illustration and design. Further education may increase your advancement options in this field. Hired by advertising agencies and graphic art studios. May be self-employed. Computer graphics training essential.
Librarians Maintain library collections of books, publications, documents, audio visual and other materials. Assist groups and individuals in locating and obtaining materials.	Internet Researchers, Archivists, Museum Curators	158,400→ 520 / 13→ \$24,000 - 47,600	Artistic HW HS	Increasing numbers of employers require a masters degree for entry into this occupation. Must be able to present ideas and information clearly and communicate with people. Computer literacy important.
News Analysts, Reporters and Correspondents (M) Collect and analyze facts about newsworthy events. Conduct interviews and investigations. Write newspaper, magazine, and television stories. Refer stories to the publication or broadcasting editor for approval.	Technical Writers, Public Relations Workers	59,200→ 240 / 6↘ \$19,000 - 30,400	Artistic HS	Foreign language proficiency a plus. Verbal and written skills essential. Degree in journalism may be required by some employers. Must be curious, persistent, and remember facts accurately. Hired by newspapers, magazines radio and television.
Public Relations Specialists (M) Promote ideas, services, or products. Build a good public image. Plan, organize, and carry out a program to influence and inform the public. May work with press or consumer relations.	Account Executives, Promotion Managers, Advertising Managers	243,300→ 460 / 18→ \$31,300 - 52,500	Enterprising HD HW HS	A four-year degree in public relations, journalism, marketing or communications is necessary for most entry level positions. Some employers prefer a graduate degree. Creativity and past success in extracurricular activities preferred. Must have above average communication skills.
Writers & Editors (M) Write or edit technical manuals, such as equipment manuals or operating & maintenance instructions or stories, advertisements or scripts.	Internet Researcher, Reporters, Public Relations Workers	305,900→ 290 / 12→ \$25,600 - 48,100	Artistic HW HS	A college degree generally is required for a position as a writer or editor. Although some employers look for a broad liberal arts background, most prefer to hire people with degrees in communications, journalism, or English.

EDUCATION & TRAINING

Planning, managing and providing education and training services, and related learning support services.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Self-Enrichment Education Teachers Teach courses other than those that normally lead to an occupational objective or degree. Includes self-improvement, non-vocational, non-academic subjects.	Secondary School Teachers; Elementary School Teachers	261,500↗ 106 / 2↗ \$15,000 - 38,700	Social HS	Job opportunities for teachers will vary from good to excellent. Most job openings will be attributable to the expected retirement of a large number of teachers.
Teacher Assistants Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher or another professional has ultimate responsibility for the design and implementation of educational programs and services.	Child Care Attendants, Home Health Aides, Librarian Attendants	1,312,200→ 4,480 / 85→ \$20,400 - 29,600	Social	Some employers prefer applicants with formal training; however, others train their workers on the job. Emphasis is placed on experience in working with young people. May be part-time workers.
Postsecondary Programs - Bachelors Degree or More				
Counselors, Education And Vocational (M) Counsel individuals and provide group educational and career guidance services.	Clinical Psychologists, School Social Workers, Employment Counselors	259,500→ 670 / 17→ \$33,000 - 52,600	Social HW HS	Must have a masters degree in counseling and guidance and be certified by the state of North Dakota to work in secondary schools in North Dakota. May work in employment agencies or private practice.
Education Administrators Plan, direct, and coordinate the educational activities of colleges, universities, and elementary and secondary schools. Work with financial budgets. Review programs to insure conformance to standards.	Vocational Educ. Director, Corrections Education Supervisor, Dean of Students	443,000→ 700 / 30→ \$48,900 - 82,400	Social HW HS	Masters degree or Ph.D. required for many positions, especially at the college level. Teaching experience, leadership, organizational and communication skills important. Not an entry level position.
Faculty Members, Colleges and Universities (M) Teach subjects within a prescribed curriculum. Prepare and deliver lectures. Conduct seminars or lab sessions. Stimulate and guide class discussions. Prepare, administer, and grade exams. Assign and mark essays. Publish research findings.	Writers, Consultants, Social Scientists, Mathematicians	1,671,800↗ 3,630 / 207↗ \$31,800 - 61,800	Investigative HW HS	Must have at least a masters degree. Some universities require a Ph.D. Must have good communication skills and need inquiring, analytical mind, good written and oral communication skills essential. Hired by college and universities.
Farm and Home Management Advisors Advise, instruct, and assist individuals and families engaged in agriculture, agricultural-related processes, or home economics activities. Includes county agricultural agents, home economists, and extension service advisors.	Adult and Vocational Education Teachers, Plant Physiologists	15,000→ 130 / 5→ \$25,800 - 48,100	Social HW HS	Minimum requirement is a B.S. degree in agriculture or home economics. Must be able to work with people. Hired by federal or state government and extension service.
Preschool Teachers: Except Special Ed Instruct children (normally up to 5 years of age) in activities designed to promote social, physical and intellectual growth.	Elementary School Teachers; Day Care Center Workers	437,100↗ 490 / 19→ \$18,800 - 29,400	Social HS	Job opportunities for teachers will vary from good to excellent. Most job openings will be attributable to the expected retirement of a large number of teachers.
Teachers, Vocational Education Secondary School Teach or instruct technical subjects at the secondary school level.	Secondary Teachers, Vocational Counselors, Software Trainer	95,534↘ 560 / 17→ \$34,200 - 52,600	Social HW HS	Educational requirements may vary from apprenticeship to college training depending upon the level of instruction. Work experience may be required as well as knowledge and skills needed to teach at a postsecondary, technical, or vocational institution.
Teachers, Elementary Teach pupils in public or private schools at the elementary level - basic academic, social and other formative skills.	High School Teachers, Counselors, Personnel Managers	1,540,200→ 5,710 / 153→ \$32,400 - 47,800	Social HW HS	A degree in elementary education is required. Must be certified by the state. Positions may be part-time in rural North Dakota. For kindergarten teaching, a minor in early childhood education is required.
Teachers, Secondary Instruct students in secondary schools in one or more subject areas, such as English, math or social studies. May be designated according to subject matter specialty.	Vocational Counselors, School Administrators, Sales Representatives	1,037,500→ 2,930 / 88→ \$30,900 - 46,800	Social HD HW HS	Minimum of a four-year degree required. Employers prefer teachers certified in multiple subject areas. Ability to communicate with youth. Hired by public and private schools. Must be certified by the state.
Teachers, Special Education Teach school subjects and social skills to children and adults with special needs. Adapt teaching methods and materials for individual use with blind, hearing impaired, mentally or physically handicapped, and learning disabled students.	Elementary Teachers, Counselors, Social Workers	458,916→ 1250 / 50→ \$34,900 - 52,000	Social HD HW HS	Must hold a special education credential in a chosen field such as learning disabilities, mental retardation, visually impaired, etc., as well as teacher's certificate. Rural positions may require traveling to several schools.

FINANCE

Planning, managing and providing education and training services, and related learning support services.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Bill And Account Collectors Locate and contact people to collect payments on accounts and bills. Visits or telephones customer and attempts to persuade customer to pay amount due. Maintain records and perform general clerical duties.	Credit Analysts, Credit Reporters, Loan Counselors	434,200↗ 700 / 42↗ \$17,800 - 30,500	Conventional HD	A vocational degree in financial management may be preferred by some employers, others train on the job. Above average telephone communication essential. This job demands persistence and aggressiveness.
Bookkeeping and Accounting Clerks (M) Compute, classify & record numerical data to keep financial records complete. Calculating, posting & verifying duties may be included.	Bank Tellers, Statistical Clerks, Accounting Technician	2,113,800→ 6,440 / 136→ \$21,600 - 33,500	Conventional	Some employers require formal vocational training. Knowledge of business arithmetic and bookkeeping are necessary. Employers may train their personnel on the job.
Insurance Adjusters, Examiners, Investigators Review settled claims to determine that payments & settlements have been made in accordance with company procedures. Report over or under payments & other irregularities.	Loan Officers, Real Estate Appraisers	250,000→ 636 / 17→ \$31,790 - 55,600	Conventional HD HW HS	A four-year degree is preferred and further training provided on the job by the company that hires them. A background in business and knowledge of law may be helpful. Ability to work with people essential.
Tellers Receive and pay out money for financial institutions. Keep records of money and negotiable instruments involved in various transactions.	Cashiers, Post Office Clerks, Travel Agents	607,600→ 2,480 / 129→ \$18,600 - 26,600	Conventional HD	Chances of employment may be enhanced through vocational training and on-the-job training.
Postsecondary Programs - Bachelors Degree or More				
Financial Managers Determines budgets, what programs to offer, and make sure programs are carried out effectively. Prepare financial reports required by firm to conduct its operations and satisfy tax and regulatory requirements.	Loan Officers, Accountants and Auditors	506,300→ 1,2203 / 32→ \$48,700 - 104,600	Enterprising HD HW HS	College graduate in business or economics usually required. Some prefer masters degree. Good communications skills, ability to analyze information, and work independently is necessary. Not an entry level position.
Insurance Sales Agents Sell life, casualty, health, automotive or other types of insurance.	Real Estate Agents, Securities Sales Workers, Financial Advisors	436,100→ 1,160 / 69→ \$26,200 - 75,500	Enterprising HD HW HS	Some employers prefer applicants with formal training and experience; however, others will train on the job. Must display sales and leadership. License required.
Loan Officers Examines, evaluates, authorizes or recommends approval of customer application for real estate, commercial loans or credit card accounts. May supervise loan personnel.	Accountants and Auditors, Financial Managers	372,500→ 1,190 / 25→ \$35,300 - 65,400	Enterprising HD HW HS	College degree in business, finance or accounting and economics background preferred. Must have good judgment and communications skills, and be able to analyze detailed information.
Sales Agents, Securities Buy and sell stocks and bonds based on customers' orders. Give advice and furnish client with information regarding possible purchases, market conditions, and prospects.	Commodities Brokers, Insurance Agents, Real Estate Agents	319,900↗ 310 / 13→ \$31,600 - 71,700	Enterprising HD HW HS	A college degree is increasing in importance. The ability to motivate people and work independently is essential. Must pass an examination for state license.

GOV'T & PUBLIC ADMIN.

Executing governmental functions to include Governance; National Security; Foreign Service; Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state, and federal levels

Postsecondary Programs - Associate Degree Or Less				
Inspectors & Compliance Officers Except Construction (M) Enforce adherence to laws and regulations and standards of production, safety, and service, assure observance of policies and procedures in organizations such as customs offices, chain stores, and transportation companies.	Agric. Commodities Inspectors, Occupational Health and Safety Inspector	237,000→ 820 / 21→ \$32,000 - 59,400	Conventional HW HS	Many require a college degree in addition to experience and successful scores on an examination. Masters degree is becoming necessary to compete for jobs. Hired by federal, state and local government. Not an entry level position.
Postsecondary Programs - Bachelors Degree or More				
Social & Community Service Managers Plan, organize or coordinate the activities of a social service program or community outreach organization. Oversee program, budget & policies.	Social Worker; Marketing Manager; Public Relations Manager	130,000↗ 530 / 12→ \$33,600 - 57,100	Social HW HS	Work may involve directing social workers, counselors or probation officers.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Cardiovascular Technologists (M) Conducts tests on pulmonary and/or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms and cardiac catheterizations.	Electrocardiogram Technicians, Radiological Technologists	45,400 [↗] 70 / 4 [↗] \$27,800 - 45,000	Investigative HW HS	Employers favor those who have had formal training. Most work in hospital cardiology departments, while some worked in cardiologists' offices, cardiac rehabilitation centers, or health maintenance organizations. Must like to work with people.
Dental Assistants (M) Assist dentist, set up patient and equipment and keep records.	Medical Assistants, Optometric Assistants, Chiropractor Assistants	279,800 [↗] 590 / 24 [↗] \$25,800 - 34,300	Social HD	Preference is given to graduates of vocational and associate programs. Some assistants are trained on the job. Hired by dentist offices, hospitals and government.
Dental Hygienists (M) Clean teeth and examine oral areas, head and neck for signs of oral disease.	Dental Assistants, Nurses, Radiological Technologists	167,000 [↗] 550 / 18 [↗] \$42,800 - 60,800	Social HD HW HS	Must be a graduate of an approved training program. License required. Hired by dental offices, public health offices, hospitals or clinics.
Dietetic Technicians Assist dieticians in the providing of food service and nutritional programs.	Dieticians, Home Economist, Food Service Managers	25,100 [→] 100 / 2 [→] \$18,500 - 28,000	Social	Most employers seek applicants who have completed vocational training. Candidate should have supervisory potential and ability to work with people. Hired by hospitals, nursing homes, colleges, public health services, and clinics.
Dispensing Opticians (M) Design, measure, fit and adapt frames according to written optical prescription or specification. Prepare work order of optical lab for grinding lens and mounting in frames.	Dental Laboratory Technicians, Instrument Repairers	65,900 [→] 410 / 11 [→] \$19,900 - 29,500	Enterprising HS	Employers look for high school graduates who have had courses in the science and experience dealing with marketing. Good communication skills essential. Hired by optometrists and ophthalmologists.
Emergency Medical Technicians (M) Administer first-aid treatment and transport sick or injured persons to a medical facility. May administer drugs and intravenous therapy. Many are volunteer workers, especially in rural areas.	Certified Nurse Aides, Surgical Technicians, Licensed Practical Nurses	201,000 [→] 610 / 12 [→] \$15,600 - 32,200	Social HS	There are three levels of trained EMTs ranging in responsibility from administering immediate first aid to more sophisticated care techniques, such as intravenous therapy. Hired by hospitals, private firms, police and fire departments.
Health Unit Coordinators (M) Keep track of the activities that converge at nursing stations in hospitals and clinics. They must understand medical terminology, have familiarity with many drugs that are given, and medical procedures that are to be scheduled.	Ward Clerk, Medical Assistant	NA** NA / NA** \$NA - NA	Conventional HD	Employers prefer applicants with a one-year diploma from a technical college Health Unit Coordinator program or National HUC certification. They must have good communication skills, accuracy, dependability, and enjoy working with others and be able to work under stress.
Home Health Aides Care for patient's needs in the patient's home by changing linens and doing laundry. Purchase, prepare, and serve meals. Assist patient with bathing, dressing, and other personal needs after major surgery or illness.	Nurse Aides, Physical Therapy Aides, Occupational Therapy Aides	787,300 [↑] 2,020 / 115 [↗] \$17,900 - 22,700	Social HD	Employers may prefer a high school graduate. Employers seek individuals who exhibit warmth, dependability, and level headedness. May be part-time work. Some agencies require certified nurses aide training.
Massage Therapists Manipulation of soft tissue for therapeutic purposes by hand or with mechanical or electrical apparatus for the purpose of body massage. May include the use of oil, hot and cold packs, and other recognized forms of massage therapy.	Licensed Practical Nurses, Chiropractors, Physical Therapy Assistant	117,700 [↗] 140 / 4 [→] \$14,900 - 25,000	Social HS	One year, or 500 hours of instruction from an accredited massage therapy school. Licensure required.
Medical and Clinical Laboratory Technicians (M) Perform routine tests in medical laboratory. Prepare tissues, draw blood samples, do urinalysis and blood counts. Work under the direction of a medical technologist.	Chemical Laboratory Technicians, Criminalists	151,400 [→] 500 / 18 [→] \$23,600 - 35,200	Investigative HD HW HS	Most have an associate degree since preference is given to those who have formal training. Most are employed by hospitals. Work under the supervision of a medical technologist. Certification required.
Medical Assistants (M) Perform administrative and certain clinical duties under the direction of physician. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood.	Dental Assistants, Certified Nurses Aides, Licensed Practical Nurse	416,900 [↗] 580 / 21 [↗] \$20,900 - 31,100	Social HD	Employers prefer vocational training. Graduates may become certified. Hired by large and small clinics, various medical offices, and various departments within hospitals. Internship necessary.
Medical Records and Health Information Technicians (M) Maintain medical records of patients in a hospital, clinic, or doctor's office. Process, maintain, compile and report patient information for health requirements and standards.	Insurance Clerks, Medical Secretaries	169,000 [→] 510 / 19 [→] \$22,600 - 35,100	Conventional HD HS	Work in hospitals, clinics, nursing homes, or other related institutions. Employers prefer graduates of a two-year associate degree or vocational program.
Medical Transcriptionist (M) Use transcribing machines to listen to recordings by physicians and other healthcare professionals dictating medical reports. Translate medical jargon and abbreviations into expanded forms.	Medical Secretaries, Court Reporters	98,500 [→] 710 / 16 [→] \$21,500 - 30,600	Conventional HS	Employers require vocational training. Must have accurate typing speed of 60 to 80 words per minute. Must have knowledge of medical terminology, anatomy, and physiology; correct grammar; accurate spelling; and good general office practices.
Nurses Aides, Orderlies, Including Cert. Nurse Aide (M) Provide basic patient care under direction of nursing staff. Perform duties as feeding, bathe, dress, group or move patients or change linens.	Home Health Aides, Nurses Aides, Psychiatric Aides	1,447,200 [→] 6,650 / 131 [→] \$19,100 - 25,000	Social HD HS	Must complete an approved program and pass a written and manual skills competency examination to be placed on the State Registry and be employed in long-term care facilities or home health agencies.
Nurses, Licensed Practical (M) Care of ill, injured, convalescent or disabled persons in hospitals, nursing homes, clinics, private homes, group homes and other similar settings.	Emergency Medical Technicians, Certified Nurses Aides	748,600 [→] 3,250 / 76 [→] \$28,600 - 37,100	Social HD HW HS	Must graduate from an approved educational program and pass an examination given by the state board of nursing. Employed by nursing homes, hospitals, clinics, and other related institutions.
Nurses, Registered (M) Assess patient health problems & needs, develop & implement nursing care plans & maintain medical records. Administer nursing care to ill, injured, convalescent or disabled patients. May specialize in areas as profusionist, nurse anesthetist & other areas.	Occupational Therapists, Physical Therapists, Physician Assistants	2,504,700 [↗] 6,340 / 287 [↗] \$41,000 - 62,400	Social HD HW HS	Nursing degree can be obtained in two years or four years of college. Must pass examination given by State Board of Nursing in order to be licensed.
Occupational Therapy Assistants (M) Assist occupational therapists in providing occupational therapy treatments and procedures.	Physical Therapist Assistants, Occupational Therapists	25,000 [↗] 60 / 2 [→] \$26,100 - 38,500	Social HW HS	An associate degree is required. Must write a proficiency exam. Must be able to work with people. Hired by hospitals, schools, private agencies.
Pharmacy Technicians (M) Prepare medications under the direction of a pharmacist.	Dental Assistant, Certified Nurse Aide, Surgical Technician	285,000 [↗] 510 / 10 [→] \$22,300 - 32,600	Conventional HD HS	Two year degree in pharmacy technology.
Physical Therapy Aides & Assistants (M) Assist physical therapists in providing physical therapy treatments and procedures.	Occupational Therapy assistants, Physical Therapists	106,500 [↗] 242 / 7 \$23,100 - 30,700	Social HS	An associate degree is required. Satisfactory score on a written licensure exam is also required. Must be able to work with people. Hired by hospitals, clinics, and other health care facilities.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Radiologic Technologists (M) Take X-Rays and CAT scans or administer nonradioactive materials into patient's blood stream for diagnostic purposes. Also may operate computed topography or magnetic resonance.	Dental Hygienists, Cardiovascular Technologists	196,200→ 490 / 13→ \$33,400 - 50,100	Realistic HD HW HS	Successful completion of two-four years of formal training is necessary. Ability to deal with people essential. Hired by hospitals, clinics, and dental offices. Certification required.
Respiratory Therapists (M) Following a doctor's orders, administers treatment to patients suffering from asthma, emphysema, drowning, stroke, etc. Use special equipment such as ventilators and breathing machines to restore and aid in breathing. Instruct patient in performing breathing exercises.	Dialysis Technicians, Licensed Practical Nurses	102,400↗ 210 / 15↗ \$35,409 - 47,200	Investigative HD HW HS	Training ranges from one-four years. Shift work is common. Must be able to deal with people while under stress. Must be licensed in North Dakota.
Surgical Technologists (M) Assist in operations, under supervision of surgeons, registered nurses or other surgical personnel.	Licensed Practical Nurses, Medical Assistants, Certified Nurses Aides	86,200↗ 180 / 7→ \$27,800 - 40,100	Realistic HW HS	Most are trained at technical schools or colleges. Must be conscientious, orderly, emotionally stable, and have good manual dexterity. Hired by hospitals or directly by surgeons.
Postsecondary Programs - Bachelors Degree or More				
Chiropractors Adjust spinal column and other articulations of the body to correct abnormalities of the human body believed to be caused by interference with the nervous system. Examine patient to determine nature and extent of disorder.	Osteopaths, Physical Therapists and Assistants	52,800↗ 319 / 10→ \$43,700 - 88,100	Investigative HW HS	Most students enroll in two-four year pre-med curriculum then transfer to a chiropractic school. Most are engaged in independent practice. License required.
Dentists (M) Diagnose and treat diseases, injuries and malformations of teeth, gums and related oral structures.	Psychologist, Optometrists, Physicians, Veterinarians, Podiatrists	161,100→ 130 / 2→ \$101,200 - 221,500	Investigative HW HS	A four-year program after completion of a four-year degree is common. More opportunities in the rural communities in North Dakota. Most are self-employed. License required.
Dietitians & Nutritionists (M) Plan and conduct food service or nutritional programs to assist in the promotion of health and control of disease.	Food Technologists, Home Economists, Food Service Managers, Dietetics Assistant	57,100→ 210 / 7→ \$34,400 - 52,000	Investigative HW HS	A four-year degree with a major in food and nutrition is required plus an internship. Masters degree requirements are becoming more common. May work early morning or late night hours. Work at medical facilities, schools.
Health Services Managers (M) Manages medical and health services in hospitals, businesses or schools. May run health care facility. Prepares budgets, hires staff, plans and directs health care services.	Community Health Nursing Director, Emergency Medical Services Coordinator	262,000↗ 620 / 21→ \$44,300 - 80,800	Enterprising HD HW HS	Employers seek applicants who have had clinical experience (as nurses or therapists, for example) as well as academic preparation in business or health services administration.
Medical and Clinical Laboratory Technologists (M) Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.	Biologist, Chemical Laboratory Technicians, Criminologists	167,200→ 540 / 21→ \$37,800 - 52,800	Investigative HD HW HS	A four-year college degree is the minimum requirement. Accuracy, dependability and the ability to work under pressure necessary. May supervise work of medical laboratory technicians. Certification required.
Nurse Practitioners (M) Provide specialized nursing care and treatment. Perform physical examinations and preventive health measures within prescribed guidelines. May evaluate tests, recommend other therapies and treatments. Most work directly with a physician, but may be employed by health department or other agencies.	Physician Assistants, Registered Nurses, Nurse Anesthetist	NA** NA / NA** \$NA - NA	Social HD HW HS	One-year continuing education program or masters level program. A preceptorship with a practicing physician may be required. Must pass a certification examination in order to be eligible for advanced license. Most work in specialized areas such as pediatrics or orthopedics or work in general physician offices.
Occupational Therapists (M) Assess, plan, organize and participate in rehabilitative programs that help restore vocational, homemaking and daily living skills, as well as general independence, to disabled persons.	Physical Therapists, Music Therapists, Occupational Therapy Assistants	98,900↗ 220 / 9→ \$45,400 - 64,100	Social HW HS	May work in hospitals, nursing homes, rehabilitation institutions, schools and other related sites. OT graduates complete a Masters degree. License required.
Optometrists (M) Diagnose, manage, and treat conditions and diseases of the human eye and visual system. Examine eyes and visual system, diagnose problems or impairments, prescribe corrective lenses, and provide treatment.	Chiropractors, Dentists, Physicians, Nurse Practitioner	32,700→ 100 / 10→ \$471,400 - 150,000	Investigative HW	A four-year degree plus two-three years of pre-optometric study required. Business ability and self-discipline are necessary, as well as ability to deal with people. High aptitude in science and math. Most are self-employed.
Pharmacists (M) Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medication and their use.	Pharmacologist, Pharmaceutical Chemist, Pharmaceutical Bacteriologist	243,500↗ 880 / 21→ \$59,600 - 100,600	Investigative HD HW HS	A five-year program of study required. Employers may require completion of a residency program at an accredited hospital or several years of experience. Willingness to work evenings and weekends necessary. License required.
Physical Therapists (M) Assess, plan, organize and participate in rehabilitative programs that improve mobility, relieve pain, increase strength and decrease or prevent deformity of patients suffering from disease or injury.	Occupational Therapists, Orthotists, Prosthetists, Physical Therapy Assistants	172,900↗ 410 / 15→ \$51,100 - 70,100	Social HD HW HS	A four-year degree is required; however, masters degrees are becoming increasingly important. Competition is keen. Hired by medical care facilities, schools, and other related facilities. Licensure required.
Physician Assistants (M) Provide healthcare services typically performed by a physician, under the supervision of a physician. Conduct complete physicals, provide treatment and counsel patients.	Registered Nurse, Nurse Practitioner, Physical Therapist	65,600↗ 309 / 14↗ \$54,900 - 84,900	Investigative HD HW HS	Must have worked at least four years as a registered nurse to enter the training program. Work in health facilities. Ability to work with people essential. License required.
Physicians (M) Diagnose, treat and help prevent diseases and injuries that commonly occur in the general population. May specialize in specific areas of medicine.	Dentists, Optometrists, Chiropractors, Veterinarians	633,300→ 1020 / 26→ \$106,600 - 207,400	Investigative HW HS	Cost of schooling can be extremely high. Must exercise good judgment and act quickly. High aptitude in sciences and math necessary. License required.
Speech-Language Pathologists (M) Assess and treat patients with speech, language, voice and fluency disorders.	Occupational Therapists, Physical Therapists, Physical Therapists	109,700→ 390 / 12→ \$37,400 - 57,160	Social HW HS	Masters degree is required by many employers. May work in hospitals, nursing homes, schools, or private practice. Must be able to work with people in an encouraging manner. Patience and persistence advantageous qualities.
Veterinarians (M) Diagnose & treat diseases & dysfunctions of animals. May engage in a particular function, such as research and development, consultation, technical writing, sale or production of commercial products or rendering technical services.	Dentists, Optometrists, Physicians, Animal Health Technologist	62,200↗ 150 / 6→ \$50,300 - 73,300	Investigative HW HS	Two-years of pre-veterinary study and a four-year professional degree essential. May choose to work with small animals (cats, dogs, etc.) or large animals (cows, pigs, horses, etc.). High aptitude in sciences and math. License required.
Veterinary Technicians and Technologists Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood and execute laboratory tests such as urinalysis and blood counts.	Registered Nurses, Surgical Technicians, Medical Technologists, Medical Assistants	71,200↑ 170 / 6↗ \$23,300 - 31,700	Realistic HS	Certified veterinary technicians must graduate from a two or four-year veterinary technology program. Veterinary technicians work in veterinary clinics, zoos, research clinics, colleges, and private businesses such as pet stores, boarding and grooming facilities.

HOSPITALITY & TOURISM

Planning, managing, and providing therapeutic services diagnostic services, health informatics, support services, and biotechnology research and development.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Agricultural & Food Science Technicians Work with agricultural scientists in food, fiber & animal research, production & processing; assist with animal breeding & nutrition work; assist with crop research.	Agricultural Scientists; Farm & Home Management Specialist	25,800→ 252 / 11→ \$25,400 - 39,500	Realistic HD HW HS	Many employers prefer applicants who have at least 2 years of specialized training or an associate degree in applied science or science-related technology.
Chefs & Head Cooks (M) Direct the preparation, seasoning and cooking of salads, soups, fish, meats, vegetables, desserts or other foods.	Caterers, Bakers, Decorators	2,183,262→ 6340 / 215→ \$17,400 - 25,900	Realistic HD HS	Most employers prefer applicants with past experience, vocational training, or completion of an apprenticeship program.
Food Services Managers (M) Manages businesses that serve food such as cafeterias and restaurants. Determines the types, prices and amounts of goods and services sold. Hires and supervises staff, plans budgets.	Hotel/Motel Manager, Department Store Managers, Sales Managers	350,300→ 360 / 11→ \$33,200 - 54,900	Enterprising HW HS	Many positions filled with experienced food service workers. Employers prefer two and four-year graduates of food services management programs. Good communications skills essential.
Gaming Dealers Operate table games. Stand or sit behind table and operate games of chance by dispensing the appropriate number of cards or blocks to players, or operating other gaming equipment. Compare the house's hand against players' hands and payoff or collect players' money or chips.	Tellers, Waiter/Waitresses	83,500↗ 1,120 / 53→ \$14,000 - 20,600	Realistic HS	Training obtained through a vocational school or may receive training on the job. Must have neat appearance, work well with people, and be 21 years old. Must work rapidly and accurately with arithmetic.
Hosts And Hostesses Welcome patrons, seat them at table or in lounge, and help ensure quality of facilities and service.	Waiters/Waitresses, Flight Attendants	351,200→ 1,080 / 35→ \$14,100 - 16,400	Enterprising HD	Most are trained on the job. Must be able to work in a rapid and cordial manner, with a clean, neat appearance and pleasant manner. Hired by restaurants, hotels, and bars.
Hotel Desk Clerks (M) Register guests and assign rooms in hotels and similar establishments. Receive telephone messages for guests. Collect payment for room charges when guests leave.	Receptionists, Sales Clerks	218,800→ 1,060 / 48→ \$14,200 - 18,900	Conventional	Employers prefer applicants with clerical ability and knowledge of bookkeeping. Must enjoy working with people and display a courteous and friendly manner.
Instructors, Sports (Coaches) (M) Teach sport activity to individuals or groups at private recreational facility or school. Explain, demonstrate, observe, lecture, and motivate participants. Organizes and conducts competition and tournaments.	Recreation Programmers, Athletic Trainer, Golf Club Professional	216,800→ 540 / 18→ \$15,200 - 36,300	Social HS	May instruct at park and recreation facilities, camps, or schools. Must be able to work with children and adults. Good communication skills and athletic ability necessary. Those who teach in schools must hold a teacher's certificate.
Lodging Managers Plan, organize, direct and control the operation of hotels and motels. Set policies, hire personnel and determine work schedules. Handle customer and worker complaints.	Restaurant Managers, Apartment Building Managers	71,000→ 150 / 9→ \$28,700 - 44,700	Enterprising HW HS	Employers look for an individual with management skills that can be gained either in formal training or through experience. Must be able to organize and direct the work of others. Employers may require graduates of 2 and 4 year hotel/motel management program.
Maids and Housekeeping Cleaners Make beds, replenish linens, clean and vacuum rooms and halls, and perform related services in hotels, motels, tourist homes, and other lodging facilities.	Janitors, Maintenance Engineers	1,469,500→ 4,090 / 103→ \$14,400 - 20,000	Realistic HD	Employers may prefer a high school graduate. Must be able to deal effectively with people.
Recreation Workers Plan and organize public recreation programs, playgrounds, camps, etc. Coordinate programs for children and adults. Promote interest in crafts, games, and organized recreation.	Sports Statistician, Coaches	319,800→ 1,130 / 29→ \$14,500 - 24,900	Social	Training range is from high school graduate to four-year degree. A number of these positions are part-time, seasonal, and volunteer. Work in hospitals, prisons, private and public recreation facilities.
Travel Agents Plan itineraries, arrange accommodations and other travel services for customers. May plan and sell package tours. Compute costs, make hotel reservations, obtain collect payment.	Tour Guides, Reservation Agents, Cruise Director	101,200→ 590 / 21→ \$17,300 - 25,700	Enterprising HS	Employers prefer vocational training and experience. Pleasant manner and sales ability necessary. Hired by travel agents, airlines, or are self-employed.
Waiters And Waitresses Take orders and serve food and beverages to patrons at tables in dining establishment.	Flight Attendants, Counter Workers, Hosts and Hostesses	2,360,600→ 6,960 / 447→ \$14,100 - 18,200	Social HD	Most learn their skills on the job. Many are students working part-time. Must be at least 21 if alcoholic beverages are served.

HUMAN SERVICES

Preparing individuals for employment in career pathways that relate to families and human needs.

Postsecondary Programs - Associate Degree Or Less				
Child Care Workers Attend to children at schools, businesses, private households and child care institutions.	Teachers Aides, Home Care Aides	1,388,200→ 2,550 / 147→ \$14,100 - 18,300	Social HD	Employers may prefer vocational training. Must have the desire and ability to work with small children.
Personal and Home Care Aides Assist elderly or disabled adults with daily living activities at the person's home or in a daytime non-residential facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals.	Occupational therapist assistants; Physical therapist assistants; Nurse Assistant	767,300↑ 1,170 / 149→ \$16,100 - 21,000	Social HD	Postsecondary training is very helpful, however on-the-job training is usually provided. The National Association for Home Care offers national certification for personal and home care aides.
Social and Human Service Assistants Assist professionals from a wide variety of fields, such as psychology, rehabilitation, or social work, to provide client services, and support for families. May assist clients in identifying available benefits and social and community services and help clients obtain them. May assist social workers.	Child, Family, & School Social Workers; Personal and Home Care Aides	338,700↗ 1,340 / 55→ \$18,800 - 30,100	Social HD	While a bachelor's degree usually is not required for this occupation, employers increasingly seek individuals with relevant work experience or education beyond high school.
Postsecondary Programs - Bachelors Degree or More				
Clergy (M) Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance to members.	Social Workers, Clinical Psychologists, Teachers, Counselors	404,400→ 90 / 28→ \$28,300 - 45,400	Social HW HS	Clergy work in religious, educational, medical, and social agencies. In addition to salary, a residence or housing allowance may be provided. Shortage in rural areas.
Counselors, Rehabilitation Assist people in overcoming mental, physical, or emotional handicaps. Help clients to adjust to the disability, social and work environment. Determine suitable occupations, based on interests and aptitudes. Assist with training and job placement.	Placement Counselors, Social Workers, Music Therapists	140,700↗ NA / NA→ \$22,000 - 40,000	Social HW HS	Generally a masters degree in rehabilitation counseling, counseling and guidance, or counseling psychology is required. Experience in employment counseling or job development helpful. Hired by government agencies, hospitals, and private business.
Medical & Public Health Social Workers Provide persons, families or vulnerable populations with psychosocial support needed to cope with chronic, acute or terminal illnesses.	Social Workers; Clergy	123,600↗ 400 / 13→ \$28,400 - 41,700	Social HW HS	A bachelor's degree in social work (BSW) degree is the most common minimum requirement to qualify for a job as a social worker; however, majors in psychology, sociology, and related fields may be adequate to qualify for some entry-level jobs.
Psychologists (M) Plan and carry out experiments. Observe human beings and animals. Give psychological tests and provide group and individual counseling. May specialize in educational, developmental, or social psychology.	Social Workers, Counselors, Clergy, Industrial Psychologist	154,300→ 310 / 10→ \$33,800 - 70,300	Investigative HW	Doctorate degree is required for private practice, college positions, and administrative type work. License required for private practice. Hired by schools, hospitals, and private industry. Competition is keen.
Social Workers (M) Help individuals and families cope with such problems as inadequate housing, unemployment, lack of job skills, financial management, serious illness, or substance abuse. Also work with family conflicts.	Clergy, Counselors, Industrial Psychologists	282,400→ 580 / 16→ \$29,300 - 42,600	Social HD HW HS	Employers require a four-year degree. An increasing number require a graduate degree with a specialization in criminal justice, psychology, geriatrics, pediatrics, etc. Work in government, schools, private agencies.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Computer & Office Machine Repairers (M) Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.	Electronic Repairers, LAN Technicians, Data Recovery Specialists	175,000→ 360 / 5↘ \$20,300 - 39,500	Realistic HW HS	Requires vocational training in electronics. Must have good vision, normal hearing, and color perception. Hired by computer manufacturers and retail stores.
Computer Operators (M) Monitor & control computer & peripheral equipment to process business, scientific, engineering & other data according to instructions.	Systems Analysts, Computer Service Tech, Webmasters	130,000↘ 340 / 6↘ \$20,900 - 37,000	Conventional	High school diploma required. Employers prefer applicants with experience in computer operation or those formally trained. Must be adaptable and willing to learn.
Computer Support Specialist (M) Provide technical assistance and training to computer system users. Investigate and resolve computer software and hardware problems of users. Answer client's concerning the use of computer hardware and software.	LAN Technicians, Data Recovery Specialists, Computer Repairers	552,500→ 1,540 / 34↗ \$22,100 - 37,600	Investigative HD HW HS	Preference is given to persons who are vocationally trained or have a BS degree in computer related science. Must be capable of exacting analytical work.
Postsecondary Programs - Bachelors Degree or More				
Computer & Information Systems Managers Plan, direct or coordinate activities in electronic data processing, information systems, systems analysis & computer programming.	Computer Systems Analysts; Computer Programmers	263,700→ 460 / 24↗ \$51,500 - 95,100	Enterprising HD HW HS	Strong technical knowledge is essential. Must understand & guide the work of their subordinates, yet also explain the work in nontechnical terms to senior management & potential customers.
Computer Programmers (M) Develops and writes computer programs to store, locate, and retrieve specific data, information and documents. Writes programs for classifying, indexing, input storage and retrieval of data.	Data Recovery Specialists, Systems Analysts, Webmaster	435,100↘ 580 / 20↘ \$33,300 - 56,400	Investigative HW HS	Many employers require applicants to have a four-year degree; however, certain entry level jobs may require an associate or vocational degree/certification in computer science. Must be capable of exacting analytical work.
Computer Systems Analysts (M) Plan ways to use computers to solve scientific, engineering, and technical problems. Determine data to collect, equipment needed, and steps to follow in processing information.	Computer Hardware Designer, Webmaster, Engineers	503,600↗ 860 / 37↗ \$37,600 - 68,900	Investigative HD HW HS	Preference is given to individuals with a B.S. degree. Some employers require a masters. Depending on the specific job, employers seek backgrounds in accounting, business management, physical sciences, computer science, engineering, etc.
Data Base Administrators (M) Coordinate changes to computer databases, test and implement the database, applying knowledge of database management systems.	Computer Programmers, Data Recovery Specialists	119,400↗ 256 / 13↑ \$39,600 - 71,100	Investigative HD HW HS	Many employers seek applicants who have a bachelor's degree in computer science, computer information systems. Certain entry level jobs may require an associate or vocational degree in computer science. Must be capable of exacting analytical work.
Engineers, Computer Applications (M) Plan, design, and help build computers and related equipment. Help companies decide what computer equipment they need. Solve computer problems using math models, charts, and reports.	Engineers (Industrial, Agricultural, Mechanical), Computer Engineering Tech, Computer Hardware Designer	506,800↑ 630 / 35↑ \$42,900 - 71,200	Investigative HD HW HS	Employers may prefer applicants with a graduate degree. Must have creative, analytical minds and capacity for detail. Communication essential. Must be licensed. Hired by research laboratories, industrial plants, and government.
Network & Computer Systems Administrators Install, configure & support local area networks (LAN), wide area networks (WAN) and Internet system. Maintain & monitor network software & hardware.	Computer Systems Analysts; Computer Support Specialist	309,200↗ 460 / 22↗ \$36,000 - 56,100	Conventional HD HW HS	Strong technical knowledge is essential for computer and information systems managers, who must understand and guide the work of their subordinates, yet also explain the work in non-technical terms to senior management and potential customers.
Network & Data Communications Analysts Analyze, design & evaluate network systems such as LAN or WAN & Internet. Perform network modeling, analysis & planning.	Computer System Analysts; Database Administrators	261,800↑ 240 / 22↑ \$36,600 - 60,100	Investigative HD HW HS	Rapidly changing technology requires an increasing level of skill & education on the part of employees. Professionals with an ever-broader background & range of skills, including technical knowledge, communication & other interpersonal skills are needed.

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

Planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Correctional Officers (M) Guard inmates in penal or rehabilitative institutions.	Bailiffs, Store Detectives, Security Guards, Probation Officers	441,800→ 610 / 16→ \$23,800 - 33,600	Realistic	Employers may prefer persons with one or two years of college in law enforcement.
Dispatchers (M) Send out workers, materials, and equipment as required by work settings and jobs. Dispatch buses and taxicabs in response to requests for service. Maintain a log of scheduled runs.	General Clerk	289,300→ 650 / 18→ \$24,100 - 39,300	Conventional	Must have good record keeping skills and good verbal skills. Some employers prefer high school graduates. Course work in communications and transportation may increase job opportunities.
Fire Chiefs (M) Supervise and coordinate activities of workers engaged in fire fighting and fire prevention and control.	Fire fighters, Police officers, EMT	52,500→ 50 / 2→ \$40,300 - 65,000	Realistic HW HS	Extensive knowledge and experience in fire fighting and investigation. Good oral and written communication skills. Must have good management skills. Not an entry level position.
Fire Fighters (M) Fight fires, protect lives, and property. Inspect fire-fighting equipment for serviceability. Detect fire hazards. Recommend appropriate fire prevention measures. May administer emergency first aid.	Police Officers, Emergency Medical Technicians, Fire Rangers	292,900→ 490 / 14→ \$29,600 - 42,600	Realistic HW HS	A competency exam is required and hiring is done as a result of scores received on the exam. On-the-job training consists of 600-700 hours. Continual training is given. Hired by state and local government.
Legal Assistants (paralegal) (M) Assist lawyers by researching legal precedent, investigating facts or preparing legal documents. Conduct research to support a legal proceeding to formulate a defense or initiate legal action.	Abstractors, Claims Examiners, Legal Secretaries	237,700↗ 340 / 5→ \$28,900 - 44,500	Enterprising HD HW HS	Some lawyers hire legal secretaries and train them on the job, whereas others prefer a two-year or four-year degree. Must understand legal terminology. Use of word processing programs essential.
Police and Sheriff's Patrol Officers Maintain order, enforce laws and ordinances and protect life and property. May direct traffic, serve as an escort, appear in court as a witness, and render first aid.	FBI Agents, Secret Service Agents, Fish & Game Warden, Correctional Officers	648,400→ 1,040 / 31→ \$30,160 - 46,100	Social HW HS	May require two to four-year degree with emphasis on criminal justice or law enforcement. Must meet rigorous physical and personal qualifications. Must pass competitive exams which test aptitudes, strengths and attitudes. Ability to exercise good judgment essential.
Police Chiefs (M) Supervise and coordinate activities of members of police force.	Correctional Officers, Fish and Game Wardens, Police Officers	93,000→ 180 / 6→ \$44,400 - 72,800	Enterprising HW HS	Extensive knowledge and experience in criminal justice. Good oral and written communication skills. Larger cities prefer a graduate degree. Must have good management skills. Not an entry level position.
Security Guards (M) Guard, patrol or monitor premises to prevent theft, violence or infractions of rules.	Border Guards, Correctional Officers, Fish and Game Wardens	1,040,300→ 1,310 / 28↘ \$17,124 - 30,191	Social	High school diploma preferred. Applicants must have good vision and hearing and the ability to work with and relate to others. Often applicants must go through a background investigation.
Postsecondary Programs - Bachelors Degree or More				
Detectives & Criminal Investigators (M) Conduct investigations related to suspected violations of federal, state or local laws to prevent or solve crimes.	Police Officers; Correctional Officers	106,300→ 2200 / 8→ \$40,000 - 67,300	Enterprising HW HS	Civil service regulations govern the appointment of police and detectives in most all instances. Candidates must be U.S. citizens, usually at least 20 years of age, and must meet rigorous physical and personal qualifications.
Lawyers (M) Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents and manage or advise clients on legal transactions.	FBI Special Agents, Tax Attorney, Judges	760,700→ 640 / 14→ \$48,300 - 118,100	Enterprising HD HW	Three years of graduate study after completion of B.S. degree is required. Must pass a written exam to be admitted to the bar. Communication skills are essential.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Administrative Service Managers (M) Aid executives by coordinating services such as personnel, budget, housekeeping, records control, and special management studies. Make recommendations for solution of administrative problems.	Executive Secretaries, Business Managers, Medical Assistants	247,000→ 440 / 14→ \$38,900 - 74,100	Enterprising HW HS	Technical training and experience required. Management, supervisory, and planning ability essential. Knowledge of spelling, grammar and punctuation, and good written and verbal communication skills necessary.
Clerks, General Office (M) Perform many different tasks in support of general office, business, or administrative procedures. May file, maintain financial records, operate word processing software, or other office equipment.	File Clerks, Real Estate Clerks	3,200,200→ 9,300 / 359→ \$15,600 - 25,300	Conventional HD	A high school diploma is usually required. Employers require typing, word processing, and other general office skills.
Clerks, Shipping and Receiving (M) Verify and keep records on incoming and outgoing shipments. Prepare items for shipping and determine the best methods of shipping. Route incoming shipments to proper departments.	Stock Clerks, Routing Clerks, Order Fillers	769,000→ 1,470 / 38→ \$20,300 - 34,000	Conventional	High school graduate and some experience is often required. Must be able to write legibly and keep orderly records. Willingness to work at repetitive tasks and dependability are qualities employers look for.
Customer Service Representatives Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.	Retail Salespersons; Wholesale Sales Representative	2,202,300↗ 5,760 / 176↗ \$19,4500 - 30,600	Conventional HD	Hiring requirements for customer service representatives vary from business to business, however a high school diploma is the most common educational requirement. Good interpersonal skills are important to employers.
Executive Secretaries and Administrative Assistants (M) Provide administrative support by performing clerical & administrative tasks. Higher-level assistants may also conduct independent projects and assume some training responsibilities.	Office Managers, Legal or Medical Secretaries	1,618,000→ 3,910 / 92→ \$25,800 - 40,900	Conventional HD HW	Employers may require vocational training. Must be able to meet the public & have accuracy in word processing. Employers are seeking applicants with good knowledge of spelling, punctuation, and English.
Janitors And Cleaners Keep buildings in clean & orderly condition. Clean floors, shampoo rugs, washing windows.	Window Cleaners, Hotel Maids, Gardeners	2,386,600→ 6,750 / 219→ \$16,300 - 25,800	Realistic HD	Employers may prefer applicants with past experience, but most are willing to hire inexperienced people with a steady work record and a neat appearance. Most skills are learned on the job.
Legal Secretaries Perform secretarial duties, utilizing legal terminology & procedures. Prepares legal papers and correspondence of legal nature, such as summonses, complaints, motions, and subpoenas.	Administrative Assistants, Legal Assistants, Medical Secretaries	275,300→ 590 / 13→ \$21,400 - 32,400	Conventional HS	Most employers require 60-70 words per minute typing and accuracy in transcription. Knowledge of legal terminology necessary. Experience in word processing necessary.
Medical Secretaries Perform secretarial duties utilizing knowledge of medical terminology and hospital, clinic, or laboratory procedures. Schedule appointments, bill patients and compile medical charts.	Legal Secretaries, Administrative Assistants	408,400→ 800 / 15→ \$21,700 - 29,400	Conventional HS	Employers require vocational training. Employers require an accurate typing speed of 50-80 words per minute and familiarity with medical terminology. Good spelling, punctuation, grammar, and vocabulary usage necessary.
Office Managers (M) Supervise and coordinate the activities of clerical and administrative support workers.	Department Store Managers, Sales Managers, Food Service Managers	1,418,500→ 3,011 / 80→ \$27,100 - 48,600	Enterprising HW HS	A four-year degree is preferred by some employers and others require some vocational training. Experience and familiarity with the organization activities are necessary. Promotion within the company is common.
Receptionists (M) Receive clients, customers, and others in offices and establishments. Make appointments. Provide information and answer inquiries by telephone or in person. May perform a variety of clerical duties such as typing, filing, and distributing mail.	Information Clerks, General Office Clerk	1,172,700→ 2,770 / 106→ \$17,100 - 25,600	Conventional HD	Employers may prefer vocational training. Applicants must have knowledge of general office procedures. Must enjoy working with people and have a desire to be helpful. Neat appearance essential.
Secretaries, Except Legal, Medical, and Executive Perform routine clerical and administrative functions such as drafting correspondence, scheduling appointments, organizing and maintaining paper and electronic files, or providing information to callers.	General Office Clerks, Legal or Medical Secretaries	1,939,800→ 3,310 / 71↘ \$22,100 - 32,800	Conventional	Training ranges from high school career and technical education that teach office skills, to one to two year postsecondary training. Many temporary placement agencies provide training in computer and office skills.
Postsecondary Programs - Bachelors Degree or More				
Accountants and Auditors Prepare and analyze individual, division, or consolidated balance sheets to reflect company's assets, liabilities and capital. Plan and administer accounting services. Advise on accounting problems, plan and conduct audits of accounts.	Tax Accountants, Property Accountants, County/City Auditors	1,274,000→ 2,510 / 110→ \$32,900 - 55,500	Conventional HD HW HS	A four year degree is required, and often a higher degree and/or experience is preferred. Good communication skills are essential as well as computer skills. Many accountants pass an exam to become certified public accountants (CPAS).
Human Resource Managers (M) Manage programs, set company policy on the employment, pay, and training of workers. May direct employee relations, benefits, and staff development.	Counselors, Sociologists, Teachers, Industrial Psychologists	136,200→ 309 / 9→ \$45,600 - 81,800	Enterprising HW HS	College graduate in business or public administration usually required. Some prefer masters degree. Good communication skills, ability to analyze information and work independently necessary. Ability to function under pressure important.
Management Analysts Conduct organizational studies & evaluations, design systems & procedures, conduct work simplifications & measurement studies and prepare operations/procedures manuals.	Human Resource Manager; Accountants	678,200↗ 450 / 12→ \$43,000 - 77,900	Conventional HD HW HS	Despite projected rapid employment growth, keen competition is expected for jobs as management analysts. Because analysts can come from such diverse educational backgrounds, the pool of applicants from which employers can draw is quite large.
Public Relations Managers Plan and direct public relations programs to create & maintain favorable public image for client or employer.	Marketing Managers; Sales Managers	50,000→ 150 / 5→ \$41,600 - 85,100	Enterprising HW HS	College graduates with related experience, high level of creativity and strong communication skills needed. Keen competition for jobs expected.
Training & Development Specialists Conduct training and development for employees.	Human Resource Manager; Teacher	210,300→ 480 / 11→ \$29,600 - 55,000	Social HD HW HS	Entry-level jobs are filled by college graduates who have majored in a wide range of fields. Keen competition for jobs is expected due to the abundant supply of qualified college graduates and experienced workers.

MANUFACTURING

Planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/processing engineering.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Bakers (M) Mix & bake ingredients according to recipes to produce breads, rolls, cookies, cakes, pies, pastries and other baked goods.	Caterers, Cooks or Chefs, Food Service Directors	149,300→ 420 / 25→ \$16,500 - 24,500	Realistic HD HS	Training ranges from on-the-job to vocational program completion. Hired by wholesale and retail bakers, grocery stores, government, and other institutions.
Cabinetmakers Fabricate, assemble and repair wooden articles such as cabinets and furniture. Assemble, fit, fasten, and glue materials. Operate, manipulate and tend woodworking machines. Use hand and power tools.	Carpenters, Furniture Refinishers	149,000→ 370 / 19→ \$23,700 - 34,800	Realistic HD HS	Most employers prefer applicants who have completed vocational training or apprenticeship training or have experience. Hired by construction companies and cabinet makers. May be self-employed.
Civil Engineering Technicians Apply theory & principles of civil engineering in planning, designing and overseeing construction & maintenance of structures & facilities under the direction of a civil engineer.	Civil Engineers; Drafters; Construction Managers	90,700→ 390 / 11→ \$30,400 - 44,100	Realistic HW HS	Although it may be possible to qualify for certain engineering technician jobs without formal training, most employers prefer to hire someone with at least a 2-year associate degree in engineering technology.
Dental Laboratory Technicians (M) Construct & repair full or partial dentures or dental appliances.	Orthotics and Prosthetics Technicians, Opticians	53,400→ 180 / 4→ \$23,000 - 34,300	Realistic HS	Employers may prefer an employee with vocational or apprenticeship training. Must have artistic ability and be able to work with minute detail and work under stress. Hired by dental laboratories and dentists.
Electrical and Electronic Engineering Technicians (M) Apply electrical and electronic theory and related knowledge to design, build, test, and modify electrical or electronic equipment. Work under direction of electrical or electronic engineer.	Broadcast Technicians, Bio-Medical Equipment Technicians	170,400→ 240 / 9→ \$33,700 - 53,500	Realistic HW HS	Employers prefer applicants with technical training. Must have ability to do detail work with high degree of accuracy. Hired by manufacturers & public utilities.
Electro-Mechanical Technicians Operate, test & maintain unmanned, automated, servo-mechanical or electro-mechanical equipment. May assist engineers with robotics equipment.	Electronics Technicians; Mechanical Engineering Technicians	15,700→ N/A / N/A**** \$34,600 - 48,700	Realistic HW HS	Although it may be possible to qualify for certain engineering technician jobs without formal training, most employers prefer to hire someone with at least a 2-year associate degree in engineering technology.
Industrial Machinery Mechanics & Maintenance Workers Repair, install, adjust, lubricate or maintain industrial production machinery & processing machinery or refinery & pipeline distribution systems.	Heavy Equipment Mechanics, Diesel Mechanics, Machinist	1,735,970→ 3,754 / 113→ \$25,900 - 46,000	Realistic HD HW HS	Completion of a formal apprenticeship program often required. Openings filled by employees within an industry based on seniority and past experience. Not an entry level position.
Machinists (M) Set up & operate a variety of machine tools to produce precision parts & instruments.	Blacksmiths, Gunsmiths, Locksmiths, Welders	396,500↘ 530 / 18→ \$28,200 - 43,000	Realistic HD HW HS	Completion of apprenticeship, vocational, or on-the-job training necessary. Mechanical ability essential. Hired by manufacturers and federal government.
Mechanical Engineering Technicians Develop and test machinery and equipment. Review blueprints. Draft detail drawings. Assemble modified mechanical components. Work directly under a mechanical engineer.	Drafters, Mechanical Engineers	47,800→ 70 / 5↗ \$34,800 - 51,400	Realistic HW HS	Employers seek applicants with technical degrees and some require experience. Must have the ability to do detail work with a high degree of accuracy. Creative talent is desirable for design work. Hired by manufacturing companies.
Tool And Die Makers (M) Make and repair custom-made tools, dies, jigs, fixtures, or gauges. Study blueprints, compute dimensions, and plan layout when fitting and assembling work pieces. Set up and operate tools to machines parts to specifications.	Machinists, Instrument Makers, Millwright, Gunsmith	100,800↘ 100 / 4→ \$33,100 - 49,200	Realistic HD HW HS	Those hired are apprenticed or are trained on the job. Persons must follow strict safety requirements because of potential danger of machines.
Welders And Cutters (M) Join, cut, and prepare surface metal parts or structures. Use welding, brazing, soldering, lead-burning or flame-cutting techniques.	Maintenance Mechanics, Machinists, Machine Tool Operators, Iron Workers	409,000→ 2,470 / 77→ \$26,200 - 41,300	Realistic HD HW HS	Training can be done informally on the job, through apprenticeships or formal training at secondary and postsecondary vocational technical schools. May become certified.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Auctioneers Sell articles at auction to the highest bidder, decide value of items, describe merchandise, and select the order of the items to be sold. Closes sale to the highest bidder. May write advertising copy.	Real Estate Agents, Appraisers	NA** NA / NA** \$NA - NA	Enterprising	Must have a diploma from an accredited school and be licensed and bonded. Training for this occupation is a two-week program of coursework and practicum. Many are self-employed or employed part-time as auctioneers.
Barbers Shampoo, color, cut, perm, and style hair using clippers, comb, curling iron, blow dryers, and scissors. May offer scalp treatments, facial, face massages, and shaves. License required.	Estheticians, Cosmetologists, Makeup Artists, Manicurists	60,000→ NA / NA** \$15,300 - 29,900 (US)	Realistic HS	Must complete a designated training program. Those who are versatile and able to work with many different styles and cuts have the best opportunities for employment. License required.
Butchers and Meat Cutters (M) Cut, trim or prepare consumer-sized portions of meat for use or sale in retail establishments.	Bakers, Cooks, Kitchen Supervisors	131,400→ 520 / 14→ \$16,300 - 27,200	Realistic HS	Preference is given to high school graduates. Ability to communicate with the public and strength is required to move and lift heavy pieces of meat. Hired by grocery and meat markets.
Buyers and Purchasing Agents Purchase merchandise or commodities for resale or processing. Inspects and grades or appraises agricultural commodities, durable goods, apparel, furniture, livestock, or other merchandise offered for sale to determine value and yield.	Sales Representatives, Retail Sales Workers, Sales Managers	444,000→ 740 / 33→ \$33,900 - 70,700	Enterprising HW HS	Businesses prefer to hire applicants who are familiar with the merchandise they sell as well as with wholesaling and retailing practices.
Cashiers And Checkers (M) Receive and disburse money in establishments other than financial institutions. Use electronic scanners, cash registers or related equipment.	Bank Tellers, Post Office Clerks, Sales Clerks	3,500,200↘ 10,460 / 476↘ \$14,000 - 18,100	Conventional HD	Employers prefer high school graduates. Many are part-time high school and college students. Must be able to do repetitive work accurately.
Clerks, Counter And Rental Handle transactions of renting such items as videos, cars, or equipment. Must be knowledgeable of products to assist customers in making selection.	Real Estate Agents, Cashiers, Sales Workers	476,600↗ 1,260 / 85→ \$14,000 - 22,200	Conventional HD	Employers prefer applicants with a pleasant personality and a neat appearance. Some sales clerks are commissioned, others are salaried. Many are part-time workers.
Clerks, Stock (M) Receive, store and distribute supplies, material, and equipment and other items from stockroom to shelves or to customers.	Shipping and Receiving Clerks, Routing Clerks	1,704,900↘ 4,010 / 145↘ \$16,300 - 25,900	Conventional	Many employers prefer high school graduates. Must be able to read, write legibly & perform simple arithmetic. Additional skills acquired through on the job training.
Cosmetologists And Hairstylists Cut, style, color and perm hair. Advise patrons on how to care for their hair. May suggest cosmetics for skin conditions. Give manicures, facials, and scalp treatments.	Estheticians, Barbers, Manicurists	617,500→ 1,250 / 66→ \$15,400 - 27,100	Enterprising HS	Must complete a state approved training program. Must be willing to work weekends and evenings and stand for long periods of time. It may take some time to build up a clientele. License required.
Funeral Directors Arrange and direct funerals and burials. Embalm bodies. Help families select urn or casket, make arrangements for burial plot, and place obituary notices in newspapers. Direct pallbearers in placement and removal of casket from hearse.	Embalmer, Funeral Attendant, Counselors	28,800→ 100 / 5→ \$36,800 - 72,000	Enterprising HW HS	An associate degree is required prior to one year's training at a school of mortuary science, then a 12-month apprenticeship is required before taking national and state board examinations. Some have a four-year degree prior to mortuary science school.
Real Estate Agents Buy, sell, and rent property for clients. Review trade journals, interview prospective clients. Show property. Draw up real estate contracts. Negotiate contracts with sellers and buyers.	Security Sales People, Insurance Agents, Real Estate Appraisers	432,300→ 627 / 16→ \$28,700 - 54,400	Enterprising HW HS	Must pass a written exam to become a sales agent. Works under the direction of a licensed broker. Broker must be licensed and must have completed 90 hours of real estate coursework and have two years real estate sales experience. May be self-employed.
Retail Florist (Floral Designer) Design, cut and arrange live, dried or artificial flowers or foliage.	Retail Salesperson, Store Manager, Horticulturist	86,900↘ 230 / 5→ \$16,300 - 23,700	Artistic	Some employers prefer or require technical training. Must like working with flowers and plants. Long hours at holidays.
Retail Store Managers (M) Manage retail store engaged in selling various merchandise. Plan and prepare work schedules, formulas, and pricing policies. Coordinate sales activities and supervise employees in a retail store.	Restaurant Managers, Personnel Directors	1,675,900→ 2,770 / 66→ \$24,000 - 41,800	Enterprising HW HS	Some employers prefer a four-year degree, others require vocational training. Experience may increase job opportunities. Some managers are hired through internal promotion.
Sales Agent, Advertising Sell or solicit advertising, including graphic art, advertising space in publications, custom made signs or TV/radio advertising time.	Insurance Agents, Real Estate Agents, Public Relations Workers	170,500↗ 510 / 12→ \$24,100 - 57,000	Enterprising HW	Training ranges from high school to a 4-year degree depending on the product complexity and company policies. Must be outgoing, enthusiastic, and persuasive. Good communication skills essential.
Sales Representatives Sell goods on a wholesale basis to wholesale, retail, industrial, professional, or other businesses. Show samples, explain their value and take orders. Develop new customers.	Sales-Service Promoters, Manufacturing Sales Workers	1,973,200→ 4,667 / 189→ \$33,500 - 65,600	Enterprising HD HW HS	Employers prefer formal training in marketing, sales, or business, others may hire high school graduates and train over a two-year period. Hired by manufacturers.
Sales Route Drivers Drive trucks or other vehicles on a specified route. Deliver and sell goods such as dairy and bakery products. Collect and deliver items such as laundry and dry-cleaned garments.	Truck Drivers, Sales Representative	445,100↘ 1,600 / 44→ \$15,100 - 28,600	Enterprising	Driver's license required. Preference is given to persons who have a good driving record, are good sale persons, and display a neat appearance.
Salespersons, Parts Sell spare and replacement parts and equipment in repair shop of parts store.	Auto Mechanic, Sales Representatives	238,000↘ 1,320 / 42↘ \$20,000 - 33,200	Enterprising	Many parts salespeople are trained on the job. They first may work as stock clerks before moving up to parts sales. Knowledge of automotive mechanics or electricity may increase job possibilities.
Salespersons, Retail Trade Sell merchandise, such as furniture, cars, appliances and apparel in a retail store.	Sales Route Drivers, Real Estate Agents, Insurance Agents	4,476,900→ 11,740 / 557→ \$15,100 - 29,600	Enterprising HD	Postsecondary training may improve chances for advancement into managerial positions. Must have an interest in people, and enjoy sales work. Many sales people are working part-time. Hired by retail stores.
Postsecondary Programs - Bachelors Degree or More				
Interior Designers Plan, design and furnish interiors of residential, commercial or industrial buildings. Formulate design which is practical, aesthetic and conducive to intended purposes.	Floral Designers, Fashion Designers	71,900→ 90 / 5→ \$23,000 - 42,000	Artistic HD HS	Many employers prefer a four-year degree plus experience. Must be able to work with clients, and sell merchandise. Artistic talent is crucial. Work for rental firms or may be self-employed.
Marketing Managers Determine demand for products & services offered by a business & its competitors & identify potential customers. Develop pricing strategies to maximize profits or share of market.	Advertising Managers; Sales Managers; Public Relations Managers	167,000→ 280 / 14→ \$46,200 - 93,700	Enterprising HD HW HS	College graduates with related experience, high level of creativity and strong communication skills needed. Keen competition for jobs expected.
Property and Real Estate Managers Manages apartments and office complexes, buys and sells real estate. Shows property to clients, arranges loans, and signs lease payments and sales contracts.	Restaurant Managers, Education Administrators, Real Estate Appraisers	328,900→ 230 / 14→ \$27,900 - 53,900	Enterprising HW HS	Employers prefer college graduates in business administration, finance, real estate or public administration. Good speaking and writing skills and ability to deal tactfully with people are essential. Experience in real estate sales helpful.
Sales Managers Direct distribution of product or service to the customer, establishing sales territories, quotas & goals. Analyze sales statistics.	Public Relations Managers; Marketing Managers	318,000→ 820 / 25→ \$48,200 - 97,900	Enterprising HD HW HS	College graduates with related experience, high level of creativity and strong communication skills needed. Keen competition for jobs expected.

Planning, managing, and providing scientific research and professional and technical services (e.g. physical science, social science, engineering) including laboratory and testing services, and research and development services.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Biological Technicians and Technologists (M) Assist biological and medical scientists in laboratories. Set up, operate, and maintain laboratory instruments and equipment, monitor experiments, make observations, and calculate and record results.	Fish and Wildlife Tech., Forestry Tech., Environmental Science Tech.	78,700→ 439 / 16↗ \$22,400 - 35,200	Realistic HS	Most employers prefer applicants with at least two years of specialized training. Must have aptitude for math and science and enjoy technical work. Ability to work with detail necessary. Work under the direction of experienced scientists. Hired by laboratories.
Chemical Technicians (M) Conduct chemical tests making qualitative and quantitative analysis. May work in the area of criminology, environment, or health. May analyze foods, drugs, dyes, paints, detergents, petroleum, and other products.	Medical Laboratory Technicians, Medical Laboratory Technologists	61,200→ 50 / 3↑ \$22,300 - 31,600	Realistic HS	Many employers prefer formal training in chemical technology, others hire high school graduates and train them on the job. A good background in the sciences is essential. May work for state labs, hospitals, private industry, that test liquid, solid, or gaseous materials.
Simulator Maintenance Technician (M) Troubleshoot, repair, and maintain the electronic, visual, and mechanical components of simulator trainers used in pilot training. Analyze simulator malfunctions, using appropriate tools & technical data, to determine and correct system malfunctions.	Electronic Repair Technicians, Computer Repairers, Bio-Medical Equipment Technicians	NA** NA / NA** \$37,000 - 40,000 (US)	Realistic HW HS	Employers require two years of vocational training; some trained on the job. Must be able to visualize and understand objects, distance, sizes, and other abstract forms. Mathematical ability essential. Hired by airlines and aerospace manufacturers.
Surveying And Mapping Technicians (M) Help surveyors determine the locations and boundaries of land areas for construction, mining, and other purposes. Study field notes and photographs. Prepare information for mapmaking.	Cartographers, Geotechnician, Map Editors, GIS Technician	75,600→ 190 / 17→ \$24,600 - 40,900	Realistic HW	Most employers prefer applicants with vocational training; some trained on the job. Must be able to visualize and understand objects, distance, sizes, and other abstract forms. Mathematical ability essential. Hired by government construction firms, engineering companies.
Postsecondary Programs - Bachelors Degree or More				
Chemists (M) Conduct qualitative and quantitative analyses or chemical experiments in laboratories for quality or process control or to develop new product knowledge.	Chemical Engineers, Food Technologists, Chemical Technologists	83,700→ 137 / 7→ \$39,700 - 69,500	Investigative HW HS	B.S. degree is adequate preparation for some entry level jobs; however, a higher degree is required for college teaching and independent research. Must have the knowledge and ability to apply scientific theories.
Engineers, Agricultural Solve farming problems and find ways to make farms run more efficiently. Design farm machines and equipment. Work to improve conservation of energy, soil, and water resources.	GIS Technician, Land Surveyor, Animal Scientist, Mechanical Engineer	3,100→ 40 / 5↗ \$46,200 - 74,000	Investigative HW HS	Work for manufacturers of farm equipment, electric utility companies, federal and state soil and water management agencies. Must be able to work as part of a team and be creative and have an analytical mind and capacity for detail.
Engineers, Chemical Develop processes for manufacturing chemicals. Design equipment and test methods of manufacturing the products. May specialize in preventing pollution, or refining oil and metal.	Chemist, Engineers (Aeronautical, Civil, Mechanical), Chemical Engineering Tech, Biochemist	30,400→ 30 / 2↗ \$63,900 - 93,600	Investigative HW HS	A four-year degree is required; however, some employers require a masters degree. Many are hired by manufacturing industries, primarily in chemical and petroleum refining. Also employed by consulting firms. Must be licensed.
Engineers, Civil (M) Plan, design and supervise the construction, maintenance and repair of buildings, bridges, dams, tunnels, ports, water supply systems, and transportation facilities.	Architects, Engineers (Mining, Petroleum, Agricultural), Civil Engineering Technician	256,300→ 600 / 21↗ \$45,800 - 75,800	Realistic HD HW HS	An increasing number of employers are requiring a masters degree or above. Employed by federal, state and local governments and in construction industries. Generally in or near industrial and commercial centers. Must be licensed.
Engineers, Electrical (M) Design, develop, and test electrical components, equipment, and systems in the generation of power used by electric utilities, electric motors, radar computers, and communication equipment.	Computer Applications Engineer, Electrical Engineering Tech	153,400→ 240 / 16→ \$56,300 - 84,600	Investigative HD HW HS	Employed by manufacturing of electrical and electronic equipment, aircraft, and business machines. Some work for public utilities, government agencies, and universities. Must be licensed.
Engineers, Energy Design and develop devices for the transformation of energy sources such as fossil and nuclear fuels, wind, and the sun into conveniently useful forms of energy.	Architects, Engineers (Chemical, Civil, Electrical, Mechanical)	NA** N/A / N/A** \$N/A - N/A	Investigative HW HS	Employers generally prefer applicants with a graduate degree. Employed by federal and private research laboratories, universities, and power companies.
Engineers, Industrial (M) Design and develop ways for an organization to use people, machines, and materials, consider product quality, production costs, and worker safety. May specialize in processing systems design, cost control, or safety.	Safety Engineer, Mechanical Engineer, Industrial Engineering Technician	201,300↗ 400 / 22↗ \$51,600 - 77,300	Enterprising HD HW HS	Some employers prefer applicants with a graduate degree. Over two-thirds of the industrial engineers work in the manufacturing industries. Industrial engineers are more widely distributed among industries than other engineers. Must be licensed.
Engineers, Mechanical (M) Supervise the operation and maintenance of machines that produce, transmit, or consume energy. Supervise the repair of tools with which these machines are made. Evaluate plant operations related to these machines.	Engineers (Agricultural, Electrical, Industrial), Drafter, Mechanical Engineering Tech	225,800↑ 450 / 25↗ \$48,100 - 81,200	Realistic HD HW HS	Most mechanical engineers are employed in manufacturing; therefore, opportunities may be better outside the state of North Dakota. Some work for government agencies, educational institutions, and private firms. Drafting and design experience helpful. May be licensed.
Engineers, Physics Applications Design advanced components and instrumentation for space exploration, environmental monitoring, medical applications, and scientific research activities.	Engineers (Electrical, Mechanical), Physical Scientists	NA** N/A / N/A** \$N/A - N/A	Investigative HW HS	Employed by component and instrument manufacturers, aircraft companies, federal agencies, and national scientific laboratories. Some pursue advanced degrees. May be licensed.
Environmental Scientists & Specialists Conduct research or perform investigation to identify, abate or eliminate sources of pollutants or hazards that affect either the environment or public health.	Conservation Scientists; Forest & Conservation Technicians	83,300↗ 240 / 4→ \$38,700 - 73,900	Investigative HW HS	A bachelor's degree is adequate for a few entry-level positions, but environmental scientists and geoscientists increasingly need a master's degree in a natural science.
Meteorologists (M) Study the atmosphere to increase knowledge about weather, and how it affects the environment. Develop methods and techniques for making more accurate weather forecasts. Report weather conditions to the public.	Geologist, Environmental Scientist, Hydrologists	8,800→ 60 / 3→ \$33,600 - 68,600	Investigative HW HS	A masters degree is being required by an increasing number of employers. The national weather service employs one-half of all meteorologists.

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Planning, management, and movement of people, materials and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Occupational Title/Description	Related Occupations	Nat'l Employment ND Employment \$ND Earnings	Holland Type Rating	Hiring Practices
Postsecondary Programs - Associate Degree Or Less				
Air Traffic Control Specialists (M) Control air traffic within vicinity of airport & movement of air traffic between altitude and control sectors, according to established procedures & policies. Authorize & control commercial airline flights.	Airline-Radio Operators, Airplane Dispatchers, Pilot	25,200→ 80 / 2→ \$49,800 - 83,000	Conventional HW HS	Must pass a written examination, a rigid physical exam and be under 31 years old. After formal training controllers are trained on the job and in the classroom. Very competitive. Hired by federal government and airports.
Aircraft Mechanics (M) Diagnose, adjust, repair or overhaul aircraft engines and assemblies, such as hydraulic & pneumatic systems.	Auto Mechanics, Electricians, Diesel Mechanics	122,500→ 160 / 14→ \$32,200 - 51,200	Realistic HD HW HS	Graduation from an FAA approved school is required by all employers. Certification required. Hired by airlines or federal government.
Auto Body Repairers (M) Repair & refinish automotive vehicle bodies and straighten vehicle frames.	Painters, Truck and Bus Mechanics, Auto Detailer	206,300→ 664 / 16→ \$22,800 - 43,300	Realistic HW HS	Completion of training program is necessary. Hired by repair shops and automobile dealers. May be self-employed.
Automotive Service Technicians (M) Diagnose, adjust, repair or overhaul automotive vehicles.	Autobody Repairers, Diesel Mechanics, Farm Equipment Mechanics	772,700→ 1,920 / 64→ \$19,000 - 37,400	Realistic HD HW HS	Preference given to an apprenticeship or vocational trained applicant. Hired by repair shops, government and supply shops. May be self-employed.
Bus Drivers (M) Drive bus or motor coach, including regular route operations, charters & private carriage.	Truck Drivers, Taxi Drivers	198,500→ 250 / 4→ \$19,900 - 28,400	Realistic	Ability to work with people improves chances for employment. A good driving record is essential. Must be licensed. Hired by school and private transit systems.
Diesel Mechanics/Bus & Truck Mechanics (M) Diagnose, adjust, repair or overhaul trucks, buses and all types of diesel engines.	Autobody Repairers, Auto Mechanics, Aircraft Mechanics	274,900→ 1,160 / 37→ \$28,600 - 42,700	Realistic HD HW HS	High school graduation is required and vocational or apprenticeship training preferred by employers. Hired by construction companies, bakeries, dairies, schools, and government.
Drivers, Truck (M) Operate trucks, tractor-trailers and similar vehicles powered by gasoline or diesel engines. Travel short or long distances to transport goods and materials.	Bus Drivers, Chauffeurs, Taxi Drivers	2,911,007→ 9,600 / 264→ \$23,500 - 40,800	Realistic HD HW HS	Employers prefer high school graduates. Ability to judge distances accurately, to operate safely and efficiently, and to prepare delivery forms and other driving records is essential. Must be able to work with little supervision.
Farm Equipment Mechanics Diagnose, adjust, repair or overhaul farm machinery and vehicles, such as tractors, harvesters and related equipment.	Machinists, Auto Mechanics, Diesel Mechanics, Welders	30,700→ 660 / 19→ \$26,100 - 35,700	Realistic HS	Prefer high school graduate with past experience, vocational, or apprenticeship training. Farm background an advantage.
Flight Attendants, Airplane (M) Greet passengers, verify tickets and help locate seats, serve meals and beverages. Observe passengers to detect signs of discomfort.	Gate Agents, Host/Hostesses	96,700→ NA / NA** \$28,900 - 81,000 (US)	Enterprising HW HS	Preference is given to those with two years of college or experience dealing with the public. Must have excellent health, good vision, and good communication skills. Fluency in foreign language necessary for overseas travel.
Heavy Equipment Mechanics (M) Repair and service a wide variety of construction and mining equipment. Diagnose, disassemble, replace parts and assemble, recondition, align, fit and reassemble equipment.	Diesel Mechanics, Aircraft Mechanics, Auto mechanics	130,600→ 700 / 20→ \$32,000 - 50,500	Realistic HD HW HS	Prefer high school graduate with past experience, vocational, military or apprenticeship training. Must have an aptitude for mechanical work. Hired by mining companies and heavy equipment dealers.
Mail Carriers (M) Sort mail for delivery. Deliver mail on established route by vehicle or on foot.	Delivery-Route Truck Drivers, Newspaper Carriers	337,800→ 890 / 28→ \$36,600 - 50,000	Conventional HW	Must take an examination and names are listed according to the scores of the exam. When a vacancy appears, one of the top three names on the list is chosen. Work for the federal government.
Postmasters (M) Coordinate activities of workers engaged in postal work. Set up work schedules, handle customer complaints, hire and train managers. Direct safety, finance, and maintenance for post office.	Postal Inspector, Postal Worker	25,900→ 320 / 6→ \$30,300 - 54,900	Enterprising HW HS	Postmasters are appointed from within the postal service. Appointees should have good communication, managerial and finance coordination skills, and demonstrate initiative.
Small Engine Mechanics (M) Service and repair lawn mowers, chain saws, outboard motors, and motorcycles. May adjust clutches and brakes. Provide tune-ups. May rebuild entire engine.	Aircraft Mechanics, Auto Mechanics, Motorcycle Mechanics	78,200→ 526 / 16→ \$19,000 - 31,400	Realistic HS	Employers may prefer applicants with vocational training or train on the job. Employers look for applicants with mechanical ability as well as an ability to meet and work in the public. Hired by shops and retail.
Postsecondary Programs - Bachelors Degree or More				
Airplane Pilots (M) Fly planes and helicopters to transport passengers, mail, or freight or for other commercial purposes. Use radar, compasses and direct vision. May spray crops. May test new aircraft.	Air Traffic Controllers, Helicopter Pilots	107,000→ 309 / 9→ \$44,700 - 74,700	Realistic HW HS	Pilots, other than private pilots, must have a commercial license from the FAA which includes at least 250 hours of flight experience. Must pass a strict physical exam, have 20/20 vision, good hearing, etc. Very competitive occupation. Must be certified.

Your Future Is In Your Hands

Reach your full potential with free help from **RUReadyND.com**

Available online 24/7 from school or from home, **RUReadyND.com** offers North Dakota students a complete suite of programs to help you explore all your education and career options, build meaningful plans to realize your goals, and achieve higher test scores on the ACT®.

RUReadyND.com includes the following components:

Choices® Explorer

- Explore hundreds of unique and non-traditional occupations – many requested by students like you
- Discover the connection between what you learn in school and the world of work
- Easily identify careers and majors that relate to your interests with a couple of quick quizzes
- Read engaging new articles featured each week, written in a magazine-style format
- Get real-life insight from interviews with actual students and people in various careers, as well as regularly updated blogs

Choices® Planner

- Identify occupations that relate to your interests, values, skills, and aptitudes using a variety of assessments
- Easily link between career profiles to relevant high school pathways, majors, and postsecondary schools
- Effortlessly build a meaningful plan for high school and postsecondary, as well as lifestyle plans that include where you want to live, recreation and volunteering opportunities, and more
- Prepare for the workforce with a resume builder, cover letter and thank you letter creators, as well as job interview practice modules
- Quickly find careers and schools that match your desired criteria, then compare them side by side, or to your own assessment results

testGEAR®

- Discover your strengths and weaknesses with a brief diagnostic assessment
- Build your skills and enhance your test-taking strategies with a prescribed study plan, customized to reflect your unique needs
- Work at your own speed with interactive lessons, a fun game-like Vocab Lab, and the flexibility to advance at a faster pace
- Review and monitor your personal improvement with a Progress Report
- Walk into the ACT® feeling well-prepared with practice tests that mirror the real thing



Try these programs today at www.RUReadyND.com
Contact your School Counselor for information on how to use the program.

HELP FOR NORTH DAKOTA STUDENTS



BND
Student Loans

Student Loans of North Dakota (SLND) and Bank of North Dakota (BND) are a one-stop student loan source with a long tradition of

helping students reach their higher education goals.

Over the years, SLND has built partnerships with schools, teachers, counselors and other organizations to ensure North Dakota students and their families are getting the help they need.

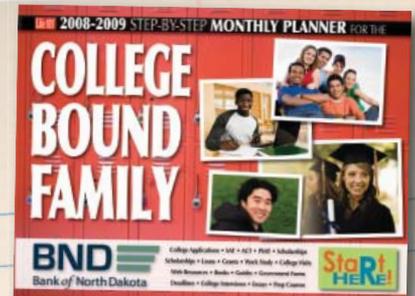
RUReadyND.com Choices Explorer, Choices Planner and testGEAR™ are tools SLND is proud to sponsor. All students registered at North Dakota's public and private high schools receive free access to these career exploration, education planning and test preparation products. Parents also have access to assist students or do research of their own.

Additional resources and services provided by SLND and BND include the *College Bound Family Calendar*, *Life 101* and *College People* magazines, *College*

WWW.ND.GOV/CTE

Planning Made Easy Web site and a College Information Service toll-free hotline.

Wouldn't it be cool to find out about all the universities and colleges in North Dakota at one time? How about knowing what to do each month of the year to prepare for college? Want information on careers, financial aid and helpful tips? Calendars and newspapers are distributed each year by direct mail to students and through counselors at North Dakota schools. The *College Planning Made Easy* Web site is available anytime, anywhere at mystudentloanonline.nd.gov. For additional materials or answers to your questions, call College Information Service at 1-800-554-2717.



SHOW ME THE MONEY

How to Pay for College



Filling Out the Forms

Financial aid funds can be limited, so it's important to apply early. The first step is to apply for admission to the campus(es) of your choice and then complete the U.S. Department of Education's Free Application for Federal Student Aid (FAFSA) as soon after January 1 as possible. With this application you are applying for all federal and some state aid programs.

The FAFSA is free and may be obtained either at your high school guidance counselor's office, the college admission or financial aid office, or on-line at www.fafsa.ed.gov. Read the instructions carefully and keep copies of everything you send. Information from federal tax returns should be used to complete the form. Clearly indicate which institution(s) should receive your financial information and use the appropriate federal school code(s). You may list up to six schools.

Once your FAFSA form has been processed, you will receive a Student Aid Report (SAR) that summarizes the information you submitted. The college(s) you listed will receive the same information.

The campus financial aid office then will determine the amount and type of aid it can offer you and will send you an award letter. Award letters are usually sent out in the late spring or early summer.

Remember to contact your school counselor's office to pursue other aid programs. Some school counselors in the state are recommending using FastWeb at fastweb.com to search for scholarships.

To receive more information about tax credits, the FAFSA's application and the U.S. Department of Education's Student Aid Program, visit studentaid.ed.gov or mystudentloanonline.nd.gov.



Need More Help Filling Out the Forms?

Attend College Goal Sunday on February 21, 2010! At this free event, prospective college students and their families will receive help in completing the FAFSA. They also will be eligible for a prize drawing. This program is coordinated by the North Dakota Association of Student Financial

Aid Administrators through grant funding from Lumina Foundation for Education. For more information and a list of locations please visit collegegoalnd.org or call 866-454-3308.

Deadlines

Deadlines for financial aid applications are important and sometimes very strict. Each postsecondary institution will have its own deadline for admissions, applications, and required tests. March 15 is the North Dakota University System priority FAFSA deadline. Contact any postsecondary institution you are interested in to find out their admissions and financial aid deadlines.

How Much Can I Get?

The cost of education at postsecondary institutions includes such things as tuition, fees, room, board, supplies, transportation, loan fees and miscellaneous expenses. Financial aid may be available to cover all or part of these expenses. Financial aid can include: scholarships, grants, loans and jobs. The campus financial aid office will use the FAFSA and other information to determine your eligibility and need for financial aid. The type and amount you receive can vary between schools and is based on factors such as grade level, family size, income and assets.

Graduate Without a Degree in Debt

You may not realize the impact of temptation until you have a credit card, and that time may come sooner than you think. College students are constantly bombarded by credit card recruiters who set up tables in areas of high visibility on campus and offer free CDs, T-shirts and other items to students who sign up for a credit card. However, no matter how young you are, once you have and use a credit card, your financial actions become part of your official credit record. Can you afford the card? Don't be tempted into thinking you'll find the money when the statement comes due. On the other hand, responsible use of a credit card can teach you great financial management skills now and for the future.

MAJOR SOURCES OF FINANCIAL AID

Grants:

(Money awarded which does not need to be repaid)

Type of Aid	Need Based	Non-Need Based	SOURCE OF FUNDS
Federal Pell Grant.....	X		Federal
Federal Supplemental Education Opportunity Grant (SEOG)	X		Federal/Institutional
Academic Competitiveness Grant.....	X		Federal
National Science and Mathematic Access to Retain Talent Grant (SMART).....	X		Federal
State Student Incentive Grant (SSIG or State Grant).....	X		Federal/State
Bureau of Indian Affairs (BIA).....	X		Federal
Workforce Investment Act (WIA) (Check with Job Service North Dakota)	X		Federal

Loans:

(Must be repaid with interest or sometimes service)

Federal Perkins Loan	X		Federal/Institutional/State
Federal FELP or Direct Stafford Subsidized Loan.....	X		Federal/State/Private Sector
Federal FELP or Direct Stafford Unsubsidized Loan.....		X	Federal/State/Private Sector
Federal FELP or Direct PLUS.....		X	Federal/Private Sector
Nursing Education Loan.....	X		State Nursing Fees
DEAL Loan-Alternative Loan through Bank of North Dakota.....		X	State

Scholarships:

(Generally based on achievement)

Robert C. Byrd Honors Scholarship (a)		X	Federal
North Dakota Scholars Scholarship (a)		X	State
Institutional Scholarships (a).....	X	X	Institutional
North Dakota Indian Scholarship.....	X	X	State

Work:

Federal Work Study.....	X		Federal/State
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When Should I Start Saving for My Child's College Education?

College SAVE – North Dakota's 529 College Savings Plan helps families save for future college expenses by allowing contributors to deposit funds into an account on behalf of a designated beneficiary. Funds can be used to cover qualified higher education expenses incurred while attending an eligible institution in or out of state. North Dakota residents participating in College SAVE can take advantage of a state income tax deduction of up to \$5,000 for single filers and \$10,000 for married couples filing jointly and a matching grant for qualified North Dakota residents. For more information, call 1-866-728-3529 or visit the College SAVE website at www.collegesave4u.com.



How Much Do I Need to Save if My Child Will Graduate From High School in 2009?

The cost of higher education can vary widely depending upon the type of college, the program of study and the region of the country where the college is located. Total cost of education usually takes into consideration tuition and fees, room and board, books and supplies, and transportation and personal expenses. The following chart shows you the average, approximate cost of attending an in-state college or university in 2009, based on a North Dakota resident living on-campus with a 5 percent annual rate of inflation.

What a Student Loan Costs

If your student loans are....	Your standard monthly payment for 10 years at 6.8% would be...*
\$ 5,000	\$58
\$10,000	\$115
\$15,000	\$173
\$20,000	\$230
\$25,000	\$288
\$30,000	\$345
\$35,000	\$403
\$40,000	\$460

*Monthly loan payment depends on the interest rate, amount borrowed and number of years it will take to pay back the loan. Standard payments are not influenced by your current salary.

Estimated Cost of Attending College in 2009

	<u>PRIVATE</u>	<u>2-YEAR COLLEGE</u>	<u>4-YEAR UNIVERSITY</u>
One Year of College	\$22,939	\$12,825	\$14,727
Completion of Degree	\$98,886	\$26,291	\$63,473

For a complete listing of approximate college costs for children ages 1 through 18, visit the following website: mystudentloanonline.nd.gov.

Take Classes at Home

Are education opportunities limited by where you live? Not at all! Today's learners can access education from home or a nearby location and can schedule classes around their work or other activities. Both youth and adults can benefit from distance education courses offered through the North Dakota Center for Distance Education and the North Dakota University System.

The North Dakota Center for Distance Education (NDCDE) is accredited by the ND Department of Public Instruction. It provides opportunities for middle school students, high school students, and adults who do not have high school diplomas to:

- take courses that aren't offered locally;
- continue their education while homebound, disabled, or even living in another country; and
- earn a high school diploma through alternative methods.

For more information, contact your school counselor or the:

North Dakota Center for Distance Education
1510 12th Avenue North
PO Box 5036 • Fargo ND 58105-5036
Phone: 701-231-6000 • Fax: 701-231-6052 • www.ndcde.org



North Dakota University System (NDUS) colleges and universities offer both undergraduate and graduate courses by distance education. For more information, refer to "Distance Education in North Dakota" below, and to the clearinghouse of distance education at www.nduso.org.

NORTH DAKOTA
UNIVERSITY SYSTEM

The Vital Link to a Brighter Future

When you are considering distance education, make sure the college is accredited.

DISTANCE EDUCATION IN NORTH DAKOTA

Access to postsecondary education has never been easier because of the distance learning opportunities available through the North Dakota University System (NDUS).

For nearly two decades, the NDUS has provided undergraduate and graduate distance learning opportunities through the Interactive Video Network (IVN). With the anytime, anywhere expectations of today's students, the North Dakota University System Online (NDUSO) also offers online courses and programs.

The NDUSO delivers certificates, two-year programs, bachelor's degrees, and graduate programs through the collaboration of the 11 colleges and universities of the NDUS with over 120 totally online programs. These virtual learning opportunities provide students the freedom to choose courses from several campuses while completing just

one application.

Internet delivery brings college courses and programs to individuals who are unable to attend classes in the traditional setting because of work, family or other commitments. Online courses also appeal to high school students who wish to take college classes as part of a dual-credit or advanced placement program. Overall, online instruction provides increased schedule flexibility for all students... residential or at-a-distance.

The NDUS also utilizes a number of other distance education formats including videotape, two-way audio, two-way video, audio conferencing, satellite downlink, off campus face-to-face, and correspondence.

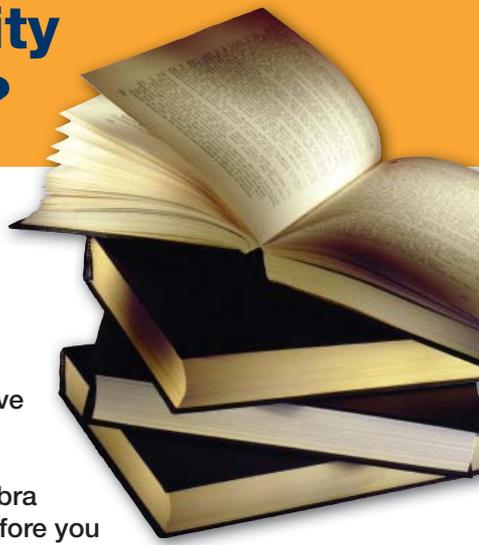
More information about NDUS distance learning opportunities is available by contacting the individual campuses or by logging on to ACCESS, a system-wide distance education Website, at

www.access.ndus.edu. The Website includes a distance education catalog and allows users to search for classes by campus, term, course level, course description, course title, delivery medium and subject area. Detailed information concerning online learning opportunities can be found at the following Website: www.nduso.org.

To evaluate whether or not you're a good candidate for online distance education, log on to the following website: www.bismarckstate.com/online/profile.asp. This self-test will help you get a clearer picture of your own online distance learning abilities.

If you are considering taking a distance education course from a provider other than the NDUS, do your homework first. Make sure the provider is a legitimate institution and not a degree mill.

What are the North Dakota University System Admission Requirements?



If you plan to attend a North Dakota University System (NDUS) four-year university, you'll need to take the following core high school courses:

- English: Four courses
- Mathematics: Three courses (algebra 1 and above)
- Laboratory science: Three courses (including at least two in biology, chemistry, physics or physical science)
- Social studies: Three courses (not including consumer education, cooperative marketing, orientation to social science or marriage/family)

Although not required, the NDUS recommends that you also take advanced algebra and at least two foreign language courses. Additional courses may be required before you can be admitted to some college programs. Your school counselor can tell you more about specific requirements for the programs that interest you.

These requirements are not in effect at the two-year NDUS colleges. If you don't take the core courses required to attend a four-year university, you can attend a two-year college. After successfully completing 24 credits, you may be eligible to transfer to a four-year university. The ACT assessment test is required for all students; the ACT writing essay may be required. Check with the campus admission office to find out if the writing essay is part of their admissions requirements.



Checklist for Admission to a College or University

- Select more than one campus for consideration.
- Request college catalogs and/or visit each campus website.
- Make appointments to tour the selected campuses (contact admissions office).
- Take the ACT – colleges can provide testing deadlines.
- Submit admission applications to the selected colleges (including fees and related paperwork).
- Request that your high school transcript be forwarded to the selected campuses.
- Verify with each college registrar's office that you have met "core course" and other admission requirements.
- Contact each institution's financial aid office to apply for financial aid and scholarships.
- Prepare parent and student (if applicable) income tax forms as soon as possible after January 1, 2010, for use in completing the Free Application for Federal Student Aid (FAFSA) form.
- Complete the 2010-11 FAFSA form to apply for federal and state grants and loans. The NDUS priority FAFSA deadline is March 15.
- Consider applying for institutional and private scholarships at each selected institution.
- Weigh your options, including financial aid packages, and select a college or university.
- Attend the college or university's orientation session.
- Get ready for the experience of a lifetime.

WHAT ARE THE BENEFITS OF HIGHER EDUCATION

According to the publication *The Investment Payoff* benefits of a college education include:

- Higher salaries and benefits
- More employment options and reduced unemployment
- Higher savings levels
- Improved working conditions
- Increased personal and professional mobility
- Improved health and life expectancy
- Improved quality of life for offspring

Specifically in North Dakota, the benefits of a bachelor's degree compared to a high school education include the following:

- A 70 percent higher income level
- Five times less likely to be unemployed
- Five times less likely to need public assistance

Planning to Transfer

Planning to transfer? The North Dakota University System (NDUS) has a program that will help you. It's called the General Education Requirement Transfer Agreement or GERTA for short. GERTA allows students to attend any public or tribal college or university in North Dakota, complete that college or university's general education requirements, and then transfer to another institution having met both institutions' requirements. In many cases, students can complete an entire associate's degree close to home before transferring to another campus to complete a bachelor's degree. This will save students time and money.

Many of our college and university programs also have what are called articulation agreements. These agreements are pacts, signed between campuses, that allow students to know exactly which courses to complete for particular majors prior to transfer. This means no wasted time or money, and it means graduating more quickly.

For more information, visit your counselor or advisor, or go to www.transfernd.com. You can also call the North Dakota Director of Articulation and Transfer at 701-328-2960.

Why Choose a North Dakota Campus?

North Dakota's public and private colleges and universities offer you outstanding opportunities:

- ✓ Educational challenges ranging from career and technical education programs to professional degrees in law, medicine and pharmacy
- ✓ Individualized attention from professors and instructors
- ✓ Nationally recognized programs of study
- ✓ Learning environments consistently ranked among the top in the nation
- ✓ Instructional programs that prepare students for the skills required in today's workplace
- ✓ Opportunities to participate in student organizations, intramural sports and inter-collegiate sports
- ✓ The peace-of-mind that comes from living and learning in a safe, secure environment
- ✓ Excellent return on your investment
- ✓ Incentive programs are available

2009 – 2010 ESTIMATED ON-CAMPUS BUDGETS FOR RESIDENT DEPENDENT STUDENTS TO ATTEND NORTH DAKOTA SCHOOLS

CODE	SCHOOL	MAILING ADDRESS	FINANCIAL AID PHONE NUMBER	ADMISSIONS PHONE NUMBER	TUITION & FEES	BOOKS & SUPPLIES	ROOM & BOARD	TOTAL
002988	Bismarck State College www.bismarckstate.edu	PO Box 5587 Bismarck ND 58506	701-224-5494 1-800-445-5073	701-224-5429 1-800-445-5073	\$3,933 ¹	\$900	\$5,100	\$9,933
015793	Cankdeska Cikana Community College www.littlehoop.edu	PO Box 269 Fort Totten ND 58335	701-766-1341	701-766-1342	\$2,480	\$700	\$5,750	\$8,930
002995	Dakota College at Bottineau www.dakotacollege.edu	105 Simrall Blvd Bottineau ND 58318	701-228-5437 1-800-542-6866	701-228-5426 1-800-542-6866	\$3,837	\$1,000	\$4,308	\$9,145
002989	Dickinson State University www.dickinsonstate.edu	291 Campus Drive Dickinson ND 58601	701-483-2371 1-800-279-4295	701-483-2175 1-800-279-4295	\$5,250 ²	\$1,000	\$4,494	\$10,744
015536	Fort Berthold Community College www.fbcc.bia.edu	PO Box 490 New Town ND 58763	701-627-4738 Ext. 245	701-627-4738	\$3,340	\$1,000	\$2,800	\$7,140
041394	The Hair Academy www.thehairacademynd.com	2101 East Broadway Avenue Bismarck ND 58501	701-255-3547 1-800-793-9594	701-255-3547 1-800-793-9594	\$7,920	\$1,299	\$6,240 ³	\$15,459
016232	Headquarters Academy of Hair Design	108 S Main Street Minot ND 58701	701-852-8329 1-800-891-5135	701-852-8329 1-800-891-5135	\$10,800	\$330	\$4,560 ³	\$15,690
012295	JZ Trend Academy (DBA RD Hairstyling College) www.rdhairstylingcollege.com	124 N 4th Street Bismarck ND 58501	701-223-8804	701-223-8804 1-800-767-5079	\$11,495	\$1,600	\$4,092 ³	\$17,187
002990	Jamestown College	6085 College Lane Jamestown ND 58405	701-252-3467 Ext. 5556	701-252-3467 Ext. 5562 1-800-336-2554	\$16,006	\$1,000	\$5,156	\$22,162
007756	Josef's School of Hair Design, Inc. www.jsohd.com	627 N P Avenue Fargo ND 58102	701-235-0011 1-800-201-0012	701-235-0011 1-800-201-0012	\$11,100	\$650	\$7,700	\$19,450
010406	Josef's School of Hair Design, Inc. www.jsohd.com	2011 S Washington Grand Forks ND 58201	701-772-2728 1-800-201-0012	701-772-2728 1-800-201-0012	\$11,100	\$650	\$7,700	\$19,450
002991	Lake Region State College www.lrsc.edu	1801 College Dr N Devils Lake ND 58301-1598	701-662-1517 1-800-443-1313	701-662-1514 1-800-443-1313	\$3,908	\$900	\$4,780	\$9,588
002993	Mayville State University www.mayvillestate.edu	330 3rd Street NE Mayville ND 58257	701-788-4767 1-800-437-4104	701-788-4842 1-800-437-4104	\$5,793 ⁴	\$900	\$4,488	\$11,181
009354	Medcenter One College of Nursing www.medcenterone.com/collegeofnursing	512 N 7th Street Bismarck ND 58501	701-323-6270	701-323-6271	\$10,609	\$1,069	\$5,085	\$16,763
002994	Minot State University www.minotstate.edu	500 University Ave W Minot ND 58707	701-858-3375 1-800-777-0750	701-858-3350 1-800-777-0750	\$5,389	\$1,000	\$4,602 ⁵	\$10,991
016929	Moler Barber College of Hairstyling	16 S 8th Street Fargo ND 58103	701-232-6773	701-232-6773	\$5,480	\$855	\$5,335	\$11,670
002996	North Dakota State College of Science www.ndsccs.edu	800 N 6th Street Wahpeton ND 58076	701-671-2207 1-800-342-4325 Ext. 32207	701-671-2202 1-800-342-4325 Ext. 32202	\$4,114 ⁶	\$900	\$5,464	\$10,478
002997	North Dakota State University www.ndsu.edu	PO Box 6050 Depl 5240 Fargo ND 58108	701-231-6200 1-866-924-8969	701-231-8643 1-800-488-6378	\$6,436	\$950	\$6,402	\$13,788
004846	Rasmussen College www.rasmussen.edu	1701 E Century Ave Bismarck ND 58503	701-530-9600 1-877-530-9600	701-530-9600 1-877-530-9600	\$12,600 ⁷	\$0	\$3,519 ³	\$16,119
004846	Rasmussen College www.rasmussen.edu	4012 19th Ave SW Fargo ND 58103	701-277-3889 1-800-817-0009	701-277-3889 1-800-817-0009	\$12,600 ⁷	\$0	\$3,519 ³	\$16,119
040313	Salon Professional Academy www.thesalonprofessionalacademy.com	4377 15th Ave S Fargo, ND 58103	701-478-1772 Ext. 111 1-877-478-1772	701-478-1772 Ext. 104 1-877-478-1772	\$13,060	\$630	\$5,187 ³	\$18,877
014993	Sitting Bull College www.sittingbull.edu	1341 92nd Street Fort Yates ND 58538	701-854-8000 701-854-8013	701-854-8020	\$3,810	\$1,000	\$5,200	\$10,010
012059	Trinity Bible College www.trinitybiblecollege.edu	50 S 6th Avenue Ellendale ND 58436	1-888-822-2329	1-888-822-2329	\$13,000	\$880	\$4,900	\$18,780
009450	Turtle Mountain Community College www.tm.edu	PO Box 340 Belcourt ND 58316	701-477-7862	701-477-7862	\$2,000	\$400	\$3,664 ³	\$6,064
002992	University of Mary www.umary.edu	7500 University Dr Bismarck ND 58504	701-255-7500 1-800-288-6279	701-255-7500	\$12,760	\$1,000	\$4,820 ⁸	\$18,580
003005	University of North Dakota www.und.edu	264 Centennial Dr Stop 8371 Grand Forks ND 58202-8371	701-777-3121 1-800-CALLUND	701-777-3821 1-800-CALLUND	\$6,726	\$800	\$5,630	\$13,156
003005	UND School of Medicine & Health Sciences www.med.und.edu	501 N Columbia Rd Stop 9037 Grand Forks ND 58202-9037	701-777-2849	701-777-4221	\$24,893	\$2,250	\$9,104	\$36,247
014470	United Tribes Technical College www.uttc.edu	3315 University Dr Bismarck ND 58504	701-255-3285 Ext. 1354	701-255-3285 Ext. 1334	\$3,580	\$800	\$3,000	\$7,380
003008	Valley City State University www.vcsu.edu	101 College St SW Valley City ND 58072	701-845-7412 1-800-532-8641	701-845-7101 1-800-532-8641	\$5,924 ^{1,4}	\$800	\$4,726	\$11,450
003007	Williston State College www.wsc.edu	PO Box 1326 Williston ND 58802	701-774-4248 1-888-863-9455	701-774-4210 1-888-863-9455	\$3,130 ⁷	\$900	\$4,300 ⁸	\$8,330

Note: Totals do not include Personal, Recreation or Miscellaneous costs which average approximately \$3,000. Costs may be different for specialized programs. Contact the college for more information.

Chart Footnotes:

- 1 Based on 15 credits per term.
- 2 Up to \$150/month may be added for child care.
- 3 Amount is for dependent student living with parents.
- 4 Includes notebook computer.
- 5 Based on double room occupancy and 19 meals, 7 day plan.
- 6 Based on 16 credits per term.
- 7 Based on 12 credits per term.
- 8 This budget is used for financial aid purposes. Contact campus housing for actual costs.

DATE	SUBJECT
	<h2 data-bbox="284 368 1300 569">It's Time to Think about Searching for a Job!</h2> <p data-bbox="494 569 1181 652">Here are some quick time-saving tips that will make your hunt go more smoothly.</p> <ul style="list-style-type: none"> <li data-bbox="375 683 1308 839">• Make the Switch. It is time now to make the switch from student to adult. What does that mean? Check your voice mail message, edit your social networking sites and make sure they give the impression of the professional you that you would like to project. <li data-bbox="375 839 1308 1025">• Be Prepared. Have an up-to-date resume ready to send. You will want to make changes so that it is appropriate for each job but you should have a basic resume ready at all times. Don't forget to check with your references in advance so they know to expect those phone calls and requests for recommendations. <li data-bbox="375 1025 1308 1149">• Get Help. Utilize the people and agencies that are there to help you in this search. Check with high school and college counselors, career offices, Job Service ND and the public library. <li data-bbox="375 1149 1308 1305">• Be Thorough. Exhaust all possibilities when searching for the next job. In addition to Job Service, try using search engines and don't forget to network. Many job openings are not advertised so tell everyone you know that you are looking for work. <li data-bbox="375 1305 1308 1491">• Save Time. Can't find the time to get it all done? Consider hiring someone to help post your availability or to help with your resume and/or applications. It can save you hours of time and assure a professional product. Be sure to check their work to ensure that what they do is a true reflection of you. <li data-bbox="375 1491 1308 1647">• Never Quit. At times it might seem like you have been searching forever and there is little hope to finding something suitable. The job for you is out there so keep on looking as you continue to develop your skills and gain experiences. <p data-bbox="438 1657 1276 1823">Steve Beutler, Minot High School, has created a job search tool kit that will help you with all the details for your job search. Go to www.nd.gov/cte/crn and click on "Nail That Job" in the Students column to find all the resources you need to get started!</p>



Going Green!

What does it mean to live green or have a green job? The answer to that is both complex and simple. Much of the national talk is focused on energy but do you remember that Ben Franklin's kite experiment that led to the discovery of electricity was powered by wind? That is simple. But, the power of Ben Franklin was not the wind or the kite, it was his innovative thinking.

Green is about the power of innovation, making good ideas better, understanding the human impact on the earth, and valuing our social responsibility to all people.¹

Whether it is referenced as green, renewable or sustainable, the idea of going green is being discussed everywhere. One's concerns may be economic or environmental, but the demand for more energy efficient buildings, homes, cars and consumer products is higher than ever before.

The demand for sustainability has created two parallel movements in the workforce – the development of new careers in the green industry, such as solar panel installers and wind turbine technicians; and the “greening” of all other jobs. From construction to business management, sustainability issues are growing very important in a number of career pathways. These jobs are high skill, high wage and in high demand. They exist in sectors as diverse as landscaping and automotive manufacturing.

While the technologies to support the sustainability industry have been or are being created, the industry lacks the skilled workforce necessary to implement and use these technologies. CTE programs are poised and ready to ease the workforce shortage that could limit job growth in these green-collar jobs through exposure to green careers and preparing you to be leaders in the future workforce.²

¹ Albrecht, “Going Green”, *Techniques*, April 2009, http://www.acteonline.org/tech_april09.aspx

² Hyslop, Alisha, “CTE's Role in Energy and Environmental Sustainability”, *Techniques*, April, 2009, www.acteonline.org/tech_april09.aspx



Is SELF-EMPLOYMENT FOR You?

Self-employment can be an opportunity to be your own boss, earn more money and have more flexibility in your career. It can also mean less money, long hours and stress. Making the decision to start your own business is a big decision. Consider the pros and cons and complete the checklist below to see if you possess the same characteristics of successful business owners.

This checklist cannot predict success, but it can at least be used as a starting point in exploring whether entrepreneurship may be an option for you. If you agree with the majority of items on this table, owning your own business just might be for you!

Agree	Disagree	
<input type="checkbox"/>	<input type="checkbox"/>	I'm a self-starter. I don't need to be pushed to start or complete projects.
<input type="checkbox"/>	<input type="checkbox"/>	I am able to get a point across in a conversation.
<input type="checkbox"/>	<input type="checkbox"/>	When I see a problem, I confront it head-on.
<input type="checkbox"/>	<input type="checkbox"/>	I can accept failure and learn from my mistakes.
<input type="checkbox"/>	<input type="checkbox"/>	I set my own goals and work at my own pace.
<input type="checkbox"/>	<input type="checkbox"/>	I am good at networking or asking others for names of people to contact.
<input type="checkbox"/>	<input type="checkbox"/>	I am willing to work long hours.
<input type="checkbox"/>	<input type="checkbox"/>	I can put off short-term rewards for greater potential down the road.
<input type="checkbox"/>	<input type="checkbox"/>	I am good at public speaking and feel comfortable in front of an audience.
<input type="checkbox"/>	<input type="checkbox"/>	People consider me outgoing, enthusiastic and confident.
<input type="checkbox"/>	<input type="checkbox"/>	I am willing to take risks.
<input type="checkbox"/>	<input type="checkbox"/>	Working hard to make contacts and develop new clientele would be easy for me.
<input type="checkbox"/>	<input type="checkbox"/>	My financial situation is such that I am comfortable with an irregular income.
<input type="checkbox"/>	<input type="checkbox"/>	I know myself and recognize my strengths and weaknesses.
<input type="checkbox"/>	<input type="checkbox"/>	When I want something to happen, I am assertive in asking for what I want.

Pros

- Creating my own job
- Variety in my day
- Flexible work hours
- Potential for success
- More independence

Cons

- Long hours
- Loss of structure
- No benefits
- Pressure and stress
- Irregular income

Helpful Resources

Postsecondary Institutions

ND University System:
www.ndus.edu

ND Educational Site Directory:
www.nd.gov/cte/crm/docs/EdDir.pdf

Are You an Entrepreneur?

Visit www.nd.gov/cte/crm/docs/EmployYourself.pdf to complete a checklist to help you learn more about entrepreneurs and yourself!

You can also contact:

Marketplace for Entrepreneurs/Marketplace for Kids
311 E Thayer Ave Ste C, Bismarck ND 58501
701-663-0150 or 888-384-8410
www.marketplaceforentrepreneurs.org

Mini Society Curriculum for Grades 3-7
"Train-the-Trainer" Program
2718 Gateway Ave Ste 104, Bismarck, ND 58503
701-328-9718
Kathleen.tweeten@ndsu.edu

Adult Learning Centers

Belcourt Adult Learning Center
Turtle Mountain Community College
701-477-7913 www.tm.edu

Bismarck Adult Learning Center
Bismarck Public Schools
701-355-3840
www.bismarckschools.org/adultlearning

Devils Lake Adult Learning Center
Lake Region State College
701-662-1536

Dickinson Adult Learning Center
Dickinson Public Schools
701-456-0002
www.dickinson.k12.nd.us/adult_learning

Fargo Adult Learning Center
Fargo Public Schools
701-446-2807
www.fargo.k12.nd.us

Fort Totten Adult Education Program
Cankdeska Cikana Community College
701-766-1377

Grafton Adult Learning Center
North Valley Career Tech Center
701-352-3705
www.northvalley.k12.nd.us

Grand Forks Adult Learning Center
Grand Forks Public Schools-Stanford Centre
701-795-2773
www.grand-forks.k12.nd.us

Jamestown Adult Learning Center
James Valley Career Technology Center
701-252-8841

Area Career and Technical Centers

www.nd.gov/cte/links/centers.html

Mayville Adult Education Program
Mayville State University
701-788-4770

Minot Adult Learning Center
Minot Public Schools
701-857-4488
www.minot.k12.nd.us/alc

New Town Adult Education Program
Fort Berthold Community College
701-627-4738 Ext. 258

Valley City Adult Learning Center
Sheyenne Valley Area Career Tech Cntr
701-845-0256

Wahpeton Adult Education Program
Wahpeton Public School District
701-642-2604

West Fargo Adult Education Program
West Fargo Public Schools
701-356-2080

Williston Adult Learning Center
Williston State College
701-572-5886
www.adultlearningcenter.com

Human Service/ Voc Rehab Centers

www.nd.gov/dhs/locations/regionalhsc

Badlands Human Service Center

300 13th Ave W, Suite 1, Dickinson, ND 58601
701-227-7500 (Voice)
701-227-7574 TTY
1-888-227-7525

Lake Region Human Service Center

200 Hwy 2 SW, Devils Lake, ND 58301
701-665-2200 (Voice)
701-665-2211 (TTY)
1-888-607-8610

North Central Human Service Center

1015 S Broadway, Suite 18, Minot, ND 58701
701-857-8500 (Voice)
701-857-8666 (TTY)
1-888-470-6968

Northeast Human Service Center

151 South 4th St, Suite 401,
Grand Forks, ND 58201
701-795-3000 (Voice)
701-795-3060 (TTY)
1-888-256-6742

Northwest Human Service Center

316 2nd Ave W, Williston, ND 58802
701-774-4600 (Voice)
701-774-4692 (TTY)
1-800-231-7724

South Central Human Service Center

520 3rd St NW, Jamestown, ND 58401
701-253-6300 (Voice)
701-253-6414 (TTY)
1-800-260-1310 (Toll Free)

Southeast Human Service Center

2624 9th Ave SW, Fargo, ND 58103
701-298-4500 (Voice)
701-298-4450 (TTY)
1-888-342-4900

West Central Human Service Center

1237 W Divide Ave, Suite 5,
Bismarck, ND 58401
701-328-8888 (Voice)
1-800-366-6888 (TTY)
1-888-328-2662

Financial Aid

College Information Service
Student Loans of North Dakota
701-328-5835 or 800-554-2717
mystudentloanonline.nd.gov

Student Financial Assistance Program
State Grant Program North Dakota Scholars Program
701-328-4114
peggy.wipf@ndus.nodak.edu
www.ndus.edu

Bank of North Dakota
Student Loan Services
701-328-5763 or 701-328-5739 TDD
800-472-2166 or 800-643-3916 TDD
mystudentloanonline.nd.gov

Job Service North Dakota

*Statewide TTY 800-366-6888

www.jobsnd.com

Beulah

119 E Main
701-873-5607 or 877-268-5437

Bismarck-Mandan

1601 E Century Ave
701-328-5000 or 800-247-0981

Devils Lake

301 College Dr S
701-662-9300 or 800-247-0982

Dickinson

66 Osborn Dr
701-227-3100 or 800-247-0983

Fargo

1350 32nd St S
701-239-7300 or 800-247-0985

Fort Yates

Job Service Building
701-854-7463 or 800-757-6850

Grafton

927 12th St W
701-352-4450 or 800-321-7416

Grand Forks

1501 28th Ave S
701-795-3700 or 800-247-0986

Jamestown

429 2nd St SW
701-253-6200 or 800-247-0988

Minot

3416 N Broadway
701-857-7500 or 800-482-0017

New Town

204 Main St
701-627-4390

Oakes

924 S 7th St.
701-742-2546

Rolla

103 E Main Ave
701-477-5631 or 877-516-0600

Valley City

325 2nd Street NW
701-845-8860 or 800-831-6374

Wahpeton

524 2nd Ave N
701-671-1550 or 888-671-9229

Williston

422 1st Ave W
701-774-7900 or 800-247-0989

Discover your talents in...

CAREER AND TECHNICAL EDUCATION

Career and Technical Education is the key to discovering career interests and skills you need to succeed.

Who do you want to be?

That's a big question – one that you can begin to explore now. As you head into the future, it is time to decide. Whether you plan to attend a two or four year school or go straight into the workforce – or haven't decided – you can prepare for many different options through Career and Technical Education (CTE).

Career and Technical Education.

North Dakota CTE is comprised of nine program areas developed to prepare you to meet the demands of college and expectations of employers. Each program area includes a variety of course offerings leading to several possible career options, valuable skills and real-world experience. By joining Career and Technical Student Organizations (CTSOs), you will have the opportunity to focus on leadership development, personal growth through self-awareness and community service and career awareness.

ND CTE program areas and related CTOS include:

- Agriculture Education – FFA/PAS
- Business & Office Technology – FBPA/PBL
- Career Development
- Family & Computer Sciences - FCLA
- Health Careers – Skills USA
- Information Technology – Skills USA
- Marketing Education – DECA/DEX
- Technology Education - TSA
- Trades, Industry & Technical Education – Skills USA

Explore. Then Decide.

You can use CTE's career clusters to investigate a wide range of career choices in the areas that interest you. By taking classes relevant to your career interests you'll enjoy school more and gain the skills you need to continue your education and enter the workforce.

Put your talents to work.

Participating in extended learning experiences will help you gain insight to possible career options and discover if your initial choices are a good match for you. You might be interested in:

- Job shadowing/Mentoring
- Cooperative education
- Part-time jobs/Summer employment
- Service learning/Volunteer service
- Work simulations/School-based businesses
- Career camps & academies
- Internships
- On-the-job training
- Apprenticeship programs

Learn more.

- Go to www.RUReadyND.com to explore career possibilities and learn more about your interests, skills and work values and to create an individual career and academic plan.
- Learn more about the North Dakota career clusters and their plans of study by visiting www.nd.gov/cte/services/career-clusters.
- Visit www.nd.gov/cte to get more information about the CTE program areas in North Dakota.
- For additional career planning resources go to www.nd.gov/cte/crn.



CAREER RESOURCE NETWORK

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NORTH DAKOTA CAREER AND TECHNICAL EDUCATION