

## ARTISTIC

- enjoy working in unstructured situations using imagination and creativity
- tend to dislike having to follow rules or set procedures
- enjoy doing things that requiring a sense of design and an appreciation of aesthetics
- these people are frequently innovators who tend to "think way outside the box"

## CONVENTIONAL

- prefer work that is detailed and orderly, structured and routine
- enjoy work that involves data and information, rather than people or things
- likes structure with rules that are known
- dislikes having to be creative
- jobs in this area involve orderly processes and record keeping
- these people are reliable, efficient, conforming, and conscientious individuals

## ENTERPRISING

- skilled at persuading, leading, performing, influencing or managing others
- able to work to meet organizational goals or economic gain
- highly money motivated
- work requires energy and ambition, and a fair amount of self-confidence
- jobs are usually business related and often involve sales and promotion
- entrepreneurial, energetic and optimistic; establish rapport easily - sociable and talkative
- these people are focused on competing and getting ahead

## INVESTIGATIVE

- like to observe, learn, analyze, evaluate, and solve problems
- prefer working with information and data, rather than with people or things
- enjoy strategy games (chess, checkers etc) or computer games
- frequently skilled in math and/ or science
- may play a musical instrument - (music has a math component)
- these people tend to be analytical and may appear quiet and pensive

## REALISTIC

- enjoy "hands-on" work using tools, equipment, and machinery
- like working outdoors or with plants or animals
- enjoy sports or outdoor activities like rock climbing, biking, hiking or back packing
- don't like doing a lot of paperwork
- frequently work on teams to accomplish tasks or complete projects
- like building or fixing things and trouble shooting problems

## SOCIAL

- like to help people - prefer teaching, communicating, and serving others
- skilled with words - able to share ideas effectively to enlighten or inform others
- able to engage people at a personal and emotional levels
- can work with minimal structure or supervision
- tend not to be significantly money motivated
- these people are altruistic, sociable, friendly and socially responsible

## Artistic

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
Unstructured Allows non-conformity Allows originality Rewards creativity	Graphic Artist / Designer Photographer Drafting Technologist Publications Writer/Editor Web Designers/Developers Public Relations Social Psychologist	Artist /Commercial Artist Designer Musical Director Musician Photographer Writer / Editor Architect Advertising
Skills		
Creative Emotionally expressive Good interacting with others		

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Skills		
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## Enterprising

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
Managerial roles in organizations Business driven Entrepreneurial Rewards monetary gains & achievements	Public Relations professional Financial Investor Marketing Representative Lawyer Advertising and Promotion personnel Investment Analyst Stock Broker Buyer Food Services Manager Cook/Chef	Lawyer Judge TV newscaster Hotel Manager Sales Representative Public Relations specialist Real Estate Agent Financial Analyst Travel Agent Hairdresser Reporter Banker Stock Broker School Principal
Skills		
Good at persuading and manipulating others		

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Skills		
Good at persuading and manipulating others		

## Conventional

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
Business-detail Data generated Traditional Rewards conformity & dependability	Accountant Purchasing Agent Economist Payroll Clerk Mail Clerk Administrative Assistant (Secretary) Receptionist Tax Specialist Data Processing Analyst Warehouse Person Records Management/File Clerk Stores Keeper/Parts Clerk	Accountant Mail Clerk Bank Teller Cashier Office Clerk Medical Record Technician Secretary Bookkeeper Financial Auditor
Skills		
Good clerical skills, Meets precise standards and performance		

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Skills		
Good clerical skills, Meets precise standards and performance		

## Social

Work Environments	Minerals Industry Careers	Similar Careers in Other Sectors
<p>Cooperative Interactive Provides services to others Rewards personal growth in others</p>	<p>Employee Relations Officer In-house Trainer Health and Safety Worker Nurse Security Guard Translator Human Resources Manager Personnel Officer Public Relations professional Communications Officer</p>	<p>Teacher Clergy Nurses/Nurses Aide Counselor Home Health Aide Physical Therapist / Assistant Police Officer Librarian Social Worker</p>
Skills		
<p>Good interpersonal skills. Skills in mentoring, treating, healing or teaching others.</p>		

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Skills		
<p>Good interpersonal skills. Skills in mentoring, treating, healing or teaching others.</p>		

## Investigative

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<p>Academic atmosphere Uses technical abilities to complete tasks Creative scrutiny of physical, biological or cultural theories Laboratory work</p>	<p>Geologist Industrial Designer Mining and Mineral Processing Engineer Computer Programmer Chemists and Chemical Engineer Environmental Scientist Geophysicist Geochemist Mechanical and Electrical Engineer Hydrologist Metallurgist Biologist</p>	<p>Chemist/Biological Scientist Computer Analyst Draftsperson Medical Lab Technician Veterinarian / Veterinarian Technician Emergency Medical Technician Technical Writer Physician Assistant Forensic Specialist Police Detective</p>
<b>Skills</b>		
<p>Analytically, technically, scientifically and verbally competent.</p>		

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<b>Skills</b>		
<p>Analytically, technically, scientifically and verbally competent.</p>		

## Realistic

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<p>Hands-on tasks Industrial Outdoors Production-oriented Technical / mechanical jobs Works with machines</p>	<p>Electrician Engineer: Electrical, Mechanical Mechanic: Heavy Duty, Truck, Industrial Mechanic Surveyor Cook Maintenance Worker Mill Worker/Operator Refiner Machinist Equipment Operator Welder Diamond Driller Blaster Crusher Operator Miner Practical Nurse Quality Control Manager Technicians/Technologists: computer, electrical, chemical, environmental, geo-physical, geological, mining</p>	<p>Animal Caretaker Drywall Installer Heating/Air Refrigerator Mechanic Auto Mechanic Cook Electrician Printing machine operator Surveyor Carpenter Firefighter Welder Water Quality Specialist Safety Inspector</p>
<p><b>Skills</b></p>		
<p>Good with hands-on equipment, tools and machines.</p>		

**ACCOUNTANT (NOC 1111)**

If you enjoy working with numbers (dollars), like to work by yourself, and are self-motivated then maybe Accounting is a career for you.

An Accountant provides all the cost information for the mine site. This includes the maintenance of the general ledgers, reviewing payroll records, performing internal audits, providing all financial reports, and assisting in preparing annual budgets. In addition, you will be working to train other department staff on the use of the chart of accounts.

As an Accountant, you must have a university degree in accounting or business administration. The U. of Regina and First Nations University offers degrees in Business Administration; the U. of Saskatchewan offers degrees in Commerce. To work in the Accounting Department look into a diploma program in Accounting and Financial Services, as well as other related office education and administrative programs and short courses offered by Saskatchewan Polytechnic and other regional colleges. SIIT offers a certificate or diploma program in Business Administration.

Helpful High School Courses: Accounting, Economics, English Language Arts, Mathematics.

**ADMINISTRATIVE ASSISTANT (NOC 1241)**

Do you enjoy working with people and providing information? Do you like office clerical work and business machines? If so, you might consider a career as an Administrative Assistant.

As an Administration Assistant, you will assist various departments with clerical functions, route mail, type reports, and maintain files. In addition you will screen and route phone calls and visitors. You will work with various types of business machines, computers, typewriters, copy machines, calculators, etc.

To become an Administrative Assistant you could take a certificate in Administration from the U. of Regina. Saskatchewan Polytechnic also offers a variety of training programs in Business Administration, Office Education, and Computer Office Assistant. SIIT offers diploma and certificate programs in Business Administration. Various programs in business and office administration are offered at regional colleges and private vocational schools as well.

Helpful High School Courses: Information Processing, English Language Arts,  
Mathematics

**PURCHASING AGENT (NOC 1225)**

Do you like finding the best price for an item? Do you like dealing with people? If so, you might like to become a Purchasing Agent.

As a Purchasing Agent, you will be responsible for locating, purchasing, and obtaining delivery of all goods and services at a mine site. In addition, you will make sure that a good relationship is developed and maintained between the company and its suppliers. You must be familiar with all the phases of the mine operation, as well as be aware of the vendor supplied equipment and parts that match the company systems.

Most purchasing agents possess a degree or diploma. Many workers in this field also take post-secondary correspondence courses through the Purchasing Management Association of Canada's Professional Development Program. Finance and Operations Management degrees are offered at U. of Regina, U. of Saskatchewan and the First Nations University. Saskatchewan Polytechnic offers related training through its Business Administration program. Management Studies are offered by SIIT. Various programs in Business are also offered at Great Plains College.

Helpful High School Courses: Accounting, Economics, English Language Arts, Mathematics.

**WAREHOUSE PERSON (NOC 1522)**

If you like inventory control, working with people, and doing a variety of tasks, then consider warehouse work.

A Warehouse Person stores and issues supplies, maintains supply levels, and keeps a running inventory of all supplies on a computer. In addition, you will perform inventory audits, operate light equipment, and maintain a clean work environment. Some physical work (lifting and moving) is required. You will need to be able to understand and follow both oral and written instructions.

To be a warehouse employee a high school diploma or equivalent and one-year experience in store keeping and inventory work is required. Saskatchewan Polytechnic offers an 8 week long Warehouse Worker applied certificate. See Northlands College

Helpful High School Courses: Information Processing 10/20/30, Physical Education, English Language Arts, Mathematics.

## **STORES KEEPERS AND PARTS CLERKS (NOC 1522)**

If you like organizing things, making lists and shopping, or helping people find what they need, then you might consider a job as a Stores Keeper or Parts Clerk.

Stores Keepers and Parts Clerks perform a variety of duties, such as purchasing, selling and ordering stock. They also receive, sort, store and issue parts, supplies and materials. Clerks are responsible for maintaining records of the amount, kind and location of all parts, supplies and materials.

To become a Stores Keeper or a Parts Clerk a high school diploma is required. Training for these occupations is usually obtained on the job. Parts person is a designated trade in Saskatchewan. Individuals accepted into the Apprenticeship Training program in this trade receive 22 weeks of technical training. Level One and Level Two are taken on-line, while Level Three requires six weeks of classroom instruction at Saskatchewan Polytechnic. Applicants to the Parts person apprenticeship program must be currently working in the trade and have completed grade 10 or equivalent. SIIT offers a diploma program in Management Studies, and Saskatchewan Polytechnic offers related training through the Business Administration programs. See also Northlands College.

Helpful High School Courses: Information Processing 10/20/30, English Language Arts, Mathematics.

## **RECORDS MANAGEMENT/FILE CLERK (NOC 1411)**

If you like organization, office work, and are good with computers, you should consider a job in Records Management.

Records Clerks are responsible for maintaining and filing all data within an office. This involves processing, classifying, coding, cross-referencing, storing and retrieving records and documents; maintaining indexes for classification systems. They are also responsible for maintaining access lists for security classified records and for compiling statistics and reports on activities within records services.

File clerks sort and file material according to particular filing systems and keep records of materials contained or removed from files. Increasingly, file clerks are required to use computer software to file electronic data. Their duties may also include responding to requests and locating and removing the files requested.

To become a file Clerk or work in Records Management a high school diploma is required. Certificate programs and short courses in Bookkeeping, General Business, Office Education, Computer Assistance and Accounting, Computer Office Assistant, are available at Saskatchewan Polytechnic, regional colleges and private vocational schools. Saskatchewan Polytechnic also offers a diploma program in Office Automation/Administration. Certificate and diploma programs are available in Management Studies, Information Technology and Office Management from SIIT.

Helpful High School Courses: Information Processing 10/20/30, English Language Arts, Mathematics

Realistic

## **CHEMICAL TECHNICIAN (NOC 2211)**

Do you like the security of repetitive work, working with your hands and working both indoors and outdoors? If you do then you might like the job of Chemical Technician.

As a Chemical technician, you may work independently or provide support in research and analysis, chemical quality control and environmental monitoring. You would set up and conduct chemical experiments, tests and analyses. Other duties may include operating and maintaining laboratory equipment and apparatus; preparing solutions, reagents, and sample formulations; compiling records and interpreting experimental or analytical results.

To become a Chemical Technician you would need to take a Bachelor of Science degree program in Chemistry at either U. of Regina, First Nations University or U. of Saskatchewan. U. of Regina also offers a degree program in Chemical Technology. Or you could take Saskatchewan Polytechnic's two-year diploma program in Chemical Technology. Saskatchewan Polytechnic also offers a one-year certificate program for Chemical Laboratory Technicians. Programs are also offered at Great Plains College, Northlands College, and St. Peter's College.

Helpful High School Courses: Physical Science 20, Chemistry, Computer Science, English Language Arts, Mathematics.

Realistic

## **BLASTER (NOC 7372, 8231, 8411, 8221)**

If you think you would enjoy the challenge of breaking up a large block of ground then maybe you would like a career as a Blaster.

As a Blaster, you will learn how to safely handle explosives, load and tie in blast patterns, calculate the tons of rock broken and quantities of explosives used. In addition, you must understand the basics of blasting, be able to fill out all required reports, and be able to communicate effectively both verbally and in writing.

To be a Blaster you will need a high school diploma or equivalent and a minimum of one to two years experience working as a labourer on a powder crew. You will also be expected to attend any required blasting schools and will be required to obtain a Certified Blasting Certificate. See Northlands College and Saskatchewan Polytechnic Underground Mining Certificate.

Helpful High School Courses are: Energy and Mines 10/20/30, Earth Science 30, English Language Arts, Mathematics.

Realistic

## **CRUSHER OPERATOR/MECHANIC (NOC 9411)**

If you like to work with your hands and machinery, and do a variety of different tasks, then you might like to be a crusher operator/mechanic.

As a Crusher Operator/Mechanic you will operate and maintain all equipment associated with the crushing system. This includes all support equipment (trucks, loaders, dozers, forklifts and bobcats). You will also be required to perform physical work in an effort to keep the crushing system operational. You will need to be able to make decisions concerning the timeliness of repairs to lessen downtime.

To be a crusher operator/mechanic you will need a high school diploma or equivalent. There are no post-secondary education requirements, machine operators usually receive extensive on-the-job training, provided by their employer. You will need to be in good physical condition, have a background in mechanics, and have good verbal and written skills to perform this job successfully.

**Helpful High School Courses: Mechanical and Automotive 10/20/30, Welding 10/20/30, Energy and Mines 10/20/30, Physical Education, English Language Arts, Mathematics.**

Realistic

## **DRILLER (NOC 8231, 7372, 8411)**

Do you enjoy the feeling of accomplishment when you look back at the quantity and quality of work you have done? Do you like having things planned out for you? Do you enjoy working alone? If you enjoy these and think you might like to operate a drill then this is the choice for you.

As a driller, you will be required to operate your equipment safely and efficiently. You will have to perform all pre-shift inspections, drill holes to designated depths, change bits and hammers on the drill to keep it operational, and fill out all required reports. You will also need to be able to communicate effectively.

To be a driller you will need a high school diploma or equivalent. Mine-related training programs are offered by the mines. Northlands College offers an 8 week Drillers Helper Certificate program. As a Driller's helper you will be part of the drill crew on exploration projects. With experience you can move on to Driller, Foreman, and Supervisor on exploration and underground drill crews.

**Helpful High School Courses: Energy and Mines 10/20/30, English Language Arts, Mathematics.**

Realistic

## **ELECTRICIAN (NOC 7241, 7242)**

If you enjoy electronics, are curious about how electricity works, or just want to learn more about both, then maybe you would like to be an Electrician.

As an Electrician, you will work on electrical construction, instrumentation, and all electrical repairs on mine equipment. You will also be required to use electrical hand and power tools, plus electrical test equipment. In addition, you must have a working knowledge of Alternating Current (AC) and Direct Current (DC), electrical theory, and be able to work from schematics and blueprints. You must be willing to train on programmable controllers and computers.

To be an Electrician you will need a high school diploma or equivalent. Saskatchewan Polytechnic offers certificate and diploma programs, such as Electronic Systems Engineering and Power Engineering Technology.

**Helpful High School Courses: Electrical and Electronics 10/20/30, English Language Arts, Mathematics.**

Realistic

## **REFINER (NOC 9231, 9611)**

Do you like the idea of being the first to see the final product? Do you think you can handle working in a very secure area? If this sounds good then consider the job of Refiner.

In this position, you will be responsible for the operation of all equipment used in the refining process for gold. You will learn how to mix fluxes, know the various methods of extracting the gold, know how to operate the furnace, and pour and mark the bars. You will be expected to troubleshoot any problems that arise and to keep accurate records of production. You will need to work with minimal supervision, be self-motivated and able to tolerate extreme heat.

To become a refiner you will need a high school diploma or equivalent and receive on-the-job training. You will need to be able to communicate effectively in writing. Physical work is required so you will need to be in good physical condition. You will also need to satisfactorily complete a stringent background check.

**Helpful High School Courses: Energy and Mines 10/20/30, Physical Education, Chemistry, English Language Arts, Mathematics.**

Realistic

## **ENVIRONMENTAL TECHNICIAN (NOC 2231)**

Do you like working outdoors? Are you interested in nature, self-motivated, interested in monitoring the impact of mining activities on the environment? Then consider becoming an Environmental Technician.

As an Environmental Technician, you will conduct water, soil, and air monitoring activities. You will be responsible for computer data entry and the proper documentation of your activities. You will interact with all kinds of people on the mine site, as well as Provincial and Federal regulatory personnel. This is an entry-level position that may advance to Environmental Specialist or Engineer or Environmental Manager.

To become an Environmental Technician you will need a high school diploma or equivalent. Saskatchewan Polytechnic offers a diploma program in Integrated Resource Management. In order to advance you will need a university degree. U. of Saskatchewan offers degree programs in Land Use and Environmental Studies. U. of Regina also offers a degree in Environmental Biology as well as Environmental Health Science as a joint program with First Nations University.

**Helpful High School Courses: Physical Science 20, Environmental Science 20, Earth Science 30, Biology, Chemistry, English Language Arts, Mathematics.**

Realistic

## **HEAVY EQUIPMENT OPERATOR (NOC 7521)**

If you enjoy watching large equipment operate, maybe you should consider the job of Equipment Operator.

As an Equipment Operator, you will learn how to safely operate any one or more of the large pieces of equipment used at a mine site. Dozers, loaders, graders, shovels, and off-road haul trucks are some examples. In addition to the safe operation of the equipment, you will be required to perform the safety and mechanical inspections of the equipment you operate. You will need to be able to remain alert during a shift, climb a ladder to get on the equipment, and communicate effectively both verbally and in writing.

To be an Equipment Operator you will need a high school diploma or equivalent. Training for these occupations is generally provided on the job by the employer. However, Saskatchewan Polytechnic offers a Heavy Equipment Operator Training certificate program, with various modules of training including Crawler, Scraper, Back-hoe and Front-end Loader. Regional colleges and private vocational schools also offer programs providing training in Heavy Equipment Operation.

**Helpful High School Courses: Autobody 10/20/30, Mechanical and Automotive 10/20/30, English Language Arts, Mathematics.**

Realistic

## **INDUSTRIAL MECHANIC (NOC 7311)**

**Do you like working with machines, working with your hands and problem solving? If so then you should consider a career as a Mechanic.**

**As an Industrial Mechanic you will diagnose, document, and repair all mobile equipment on the mine site. You will be trained on the operation of all mobile equipment including loaders, trucks, graders, dozers, pickups, cranes, forklifts, and shovels. Welding may also be required.**

**To be an Industrial Mechanic you will need a high school diploma or equivalent. Industrial Mechanic (Millwright) is a designated trade in Saskatchewan. Individuals wishing to become certified in this trade must apprentice for four years, 1800 hours per year, under a certified tradesperson and complete 32 weeks of in-class technical training. Training is delivered at Saskatchewan Polytechnic. Applicants to the Industrial Mechanic apprenticeship program must be working in the trade. There are also several pre-employment and apprenticeship training courses in related areas available at Saskatchewan Polytechnic; Industrial Mechanics and Heavy Equipment and Truck Transport Technician, for example.**

**Helpful High School Courses: Autobody 10/20/30, Mechanical and Automotive 10/20/30, English Language Arts, Mathematics.**

Realistic

## **SAMPLE PREP TECHNICIAN (NOC 2211)**

**Do you like repetitive work and don't mind getting dirty? Do you like to work with your hands? Can you tolerate standing for long periods? Then consider becoming a Sample Prep Technician in the Assay Lab.**

**As a Sample Prep Technician you will process samples from the mine by splitting, drying, crushing, and pulverizing them to the consistency of talcum powder without cross contamination of samples. This requires the operation and maintenance of small crushers and pulverizers. You may also be required to do computer data entry.**

**To assume the duties of a Sample Prep Technician you will need a high school diploma or equivalent and other on-the-job training. You will also need to be in good physical condition. This is an entry-level position and advances to other positions in the Assay Lab.**

**Helpful High School Courses: Physical Science 20, Chemistry, English Language Arts, Mathematics.**

**SURVEYOR TECHNOLOGIST/TECHNICIAN (NOC 2212)**

Are you organized and neat, like to be detailed and accurate, like both physical and mental work and enjoy working outside as well as inside? If so, you might look into becoming a Surveyor.

A surveyor is responsible for preparing and updating the surface and underground plans of a mine. They provide all sorts of information to personnel on a mine site. The information may include the locations of ore and waste, buildings, fences, or power lines. You may be called upon to locate underground utilities, historic underground workings, drill bits stuck in drill holes, or just to survey elevations of de-watering wells or other features around the mine site.

To be a Surveyor you will have to have a college diploma or certificate. Saskatchewan Polytechnic offers diploma programs in Geomatics Technology. Certificate programs are available in Geographic Information Science for Resource Management.

Helpful High School Courses are: Drafting and Computer Aided Design 10/20/30, Physical Education, English Language Arts, Mathematics.

**UNDERGROUND MINER (8614)**

If you don't mind being underground in tunnels, enjoy seeing what is under the surface, like machines, and hands on work, you might consider becoming an underground miner.

Working underground, you will cut channels to facilitate blasting, operate power drills to bore the blast holes in the walls, and operate special heavy equipment to move rock. Good physical condition is necessary; safety in all aspects of these jobs is demanded.

To become an underground miner a high school diploma is required. Saskatchewan Polytechnic offers three certificates in Underground Mining through Northlands College. Miners generally receive on-the-job training, provided by their employer. Labourers in mine-related occupations, especially residents of Northern Saskatchewan, can take in-class training at Northlands College. They should receive training in the Workplace Hazardous Materials Information System (WHMIS), either through work or through courses offered by SASKATCHEWAN POLYTECHNIC and the regional college.

Helpful High School Courses are: Energy and Mines 10/20/30, Earth Science 30, English Language Arts, Mathematics.

## **SURFACE MINER (NOC 8614)**

Realistic

Do you like to work independently but still be part of a team? Do you like machines, hands on work, and working outdoors? If so you might consider becoming a surface miner.

A surface miner is part of a mining team that begins the process of extracting rock and minerals from the ground. They use sophisticated machines and equipment to blast and move the rock containing the sought after minerals. Good physical condition is necessary; safety in all aspects of these jobs is demanded.

To become a surface miner a high school diploma is required. There are no post-secondary education or training requirements for most occupations in this group. Miners generally receive on-the-job training, provided by their employer. A technical diploma from a mining school would help you to advance to a management job. Labourers in mine-related occupations can take in-class training at Northlands College in Buffalo Narrows. They should receive training in the Workplace Hazardous Materials Information System (WHMIS), either through work or through courses offered by and the regional college.

Helpful High School Courses are: Energy and Mines 10/20/30, Earth Science 30, English Language Arts, Mathematics.

## **WELDER (NOC 7237)**

Realistic

Do you enjoy working with your hands? Does the idea that you can fix heavy mobile and stationary equipment appeal to you? If this is your interest and you want a skilled career, and then consider becoming a Welder.

As a Welder in the minerals industry, you might work on many types of equipment from light vehicles to large crushers. You will generally work in either Mobile Maintenance or Crusher Maintenance. In either department, you will be required to identify and document the majority of welding related problems, communicate and solve the problems. You must be able to perform the majority of required welding repair jobs and use all tools and equipment properly. You may have the opportunity to be task trained in operating the equipment as well. You must be able to communicate effectively both in writing and verbally.

To be a mine welder you will need a High School diploma. Welder is a designated trade in Saskatchewan. Individuals wishing to become certified in this trade must apprentice for three years, 1800 hours per year, under a certified tradesperson and complete 22 weeks of in-class technical training. Technical training is delivered at Saskatchewan Polytechnic. Applicants to the Welder apprenticeship program must be working in the trade. Welding certificate programs are also delivered at Saskatchewan Polytechnic and regional colleges. SIIT offers a Welding Applied certificate program.

Helpful High School Courses: Welding 10/20/30, English Language Arts, Mathematics.

Realistic

## **TRUCK MECHANIC/MECHANICAL REPAIRER (NOC 7321, 7535)**

If you like trucks and motors, working with your hands, don't mind getting messy and like to problem solve then a job as a Truck Mechanic or a Mechanical Repairer might be right for you.

Motor vehicle mechanics and technicians inspect, diagnose, repair and service the mechanical, electrical and electronic systems and components of the mine trucks and other vehicles. Motor vehicle mechanics are generally responsible for reviewing work orders and discussing work with supervisors.

To become a Truck Mechanic or Mechanical Repairer a high school diploma is required. Truck and Transport Mechanic and Automotive Service Technician are designated trades in Saskatchewan. If you wish to become certified in one of these trades you must apprentice for four years, 1800 hours per year, under a certified tradesperson and complete 32 weeks of in-class technical training. Training for both programs is delivered at Saskatchewan Polytechnic. Applicants to either program must be currently working in their chosen trade. Saskatchewan Polytechnic offers related pre-employment Automotive Service Technician and Heavy Equipment and Truck and Transport Technician certificate programs. These and other pre-employment programs for mechanics are also offered through the regional colleges.

**Helpful High School Courses: Autobody, Mechanical and Automotive, English Language Arts , Mathematics.**

**ENVIRONMENTAL ENGINEER (NOC 2131)**

If you love the out-of-doors and want to see the environment managed carefully, if you are self-motivated with good negotiating skills and tact, then you might enjoy the job of Environmental Engineer.

In this position, you will work with all kinds of people on the mine site as well as Provincial and Federal Environmental personnel. You will be responsible for water, soil, and air monitoring procedures, and for reports, implementing environmental programs that include reclamation and water management. In addition, you will guide on-site environmental tours and inspections.

For those wishing to concentrate on Environmental Engineering, the U. of Regina offers a degree program in Regional Environmental Systems or Industrial Systems Engineering. The U. of Saskatchewan offers a degree in Environmental Engineering as well as a degree in Environmental Science. Saskatchewan Polytechnic offers related training through the Civil Engineering and Environmental Engineering diploma programs.

**Helpful High School Courses:** Physical Science 20, Environmental Science 20, Earth Science 30, Biology, Chemistry, English Language Arts, Calculus, Mathematics.

**GEOLOGIST (NOC 2113)**

Are you curious about the earth and how it was formed? Do you like rocks and minerals? Do you want to know where mineral resources occur and how to mine them? If so, you might consider becoming a Geologist.

As a Geologist, you will study the relationship of geology (faults, rock types, structure, etc) to the formation of ore deposits. You will learn how to find and map ore deposits, and how to monitor ore grade during mining. Your time will be split between the office, working in the mine or in the field. While in the office you will enter data into the computer, create maps, model ore deposits, and provide information to the engineers. In the mine you will collect samples and map the exposed surface. In the field you will be prospecting, sampling, mapping and looking at drill core in order to find more ore.

To be a Geologist you will need a university degree in Geology. Both the U. of Regina and the U. of Saskatchewan offer undergraduate and graduate degree programs in Geology.

**Helpful High School Courses:** Physical Science 20, Environmental Science 20, Earth Science 30, Biology, Chemistry, Physics, Calculus, Mathematics, English Language Arts.

## **HYDROLOGIST (NOC 2113)**

*Investigative*

Are you curious about the earth, how it was formed, and what part water played in mobilizing and depositing minerals? Do you want to know how water moves underground? If so, you might consider becoming a Hydrologist.

As a Hydrologist, you will study groundwater as it applies to a mine setting and study the relationship of geology (faults, rock types, structures, etc) to groundwater. You will learn how to find water by drilling, and how to establish wells to de-water the ore deposit so that it can be mined. Or you can learn how to find process water to support mineral production.

To be a Hydrologist you will need a university degree in Geologic Engineering or Geology. Both of these are offered at the U. of Saskatchewan. The U. of Regina offers degrees in Geology and Environmental Systems Engineering.

**Helpful High School Courses:** Environmental Science 20, Earth Science 30, Biology, Chemistry, Physics, Mathematics, English Language Arts.

## **INFORMATION SYSTEMS MANAGER (NOC 0213)**

*Investigative*

If you enjoy the challenge of computers and like working with people then consider becoming a Systems Manager.

As a Systems Manager, you will be responsible for the operation of all computer hardware and software on the mine site. In addition, you will provide new or updated programming, training and troubleshooting for personnel on hardware and software, and you will enforce company computer policy. You will need to be able to work with all types of people and be good at solving problems.

As a Systems Manager, you will need a university degree or a college diploma in Computer Science or related field. U. of Regina and U. of Saskatchewan offer degrees in Computer Science. Saskatchewan Polytechnic offers courses in Computer Information Systems. SIIT offers a diploma program in Information Technology. Related courses are also available through regional colleges and private vocational schools.

**Helpful High School Courses:** Computer Science, Mathematics, English Language Arts.

## **METALLURGIST (NOC 2115, 2134)**

*Investigative*

**Do you like science and Mathematics? Are you good at problem solving? Do you like challenges? If so, you would like being a metallurgist.**

**As a metallurgist, you will monitor mineral processing to maintain or increase production while keeping costs at a minimum. You will also keep records of the production, work with the process operators, and have the opportunity to test new methods of extraction to improve production. Most metallurgists in the mining industry work to remove the product from the rock but some may specialize in combining different minerals or elements together to make a final product, for example: steel.**

**To be a metallurgist you will need a university degree in Metallurgical Engineering. Students wishing to specialize in Metallurgical or Materials Engineering, must attend university outside Saskatchewan. U. of Regina does offer a Process Engineering Degree.**

**Helpful High School Courses: Chemistry, Physics, Earth Science 30, Mathematics, Calculus, English Language Arts.**

## **MINE ENGINEER (NOC 2143)**

*Investigative*

**Do you like to problem solve, ask and answer questions, work with numbers and enjoy design work? Are you creative, goal oriented, a team player and good at time management? If so, an Engineering career may be for you.**

**Some of the jobs of a Mine Engineer will be to determine if a mine is profitable, prepare plans for mines, oversee the development of the mine, select equipment, report on production, design dewatering pumping systems and the reclamation of waste rock dumps.**

**Students wishing to specialize in Mining Engineering will need a university degree in Mining Engineering. The U. of Saskatchewan offers a degree in Geological Engineering and will soon offer a degree in Mining Engineering and the U. of Regina offers a degree in Industrial Systems Engineering.**

**Helpful High School Courses: Drafting and Computer-Aided Design, Earth Science 30, Chemistry, Physics, Biology, Computer Science, Calculus, Mathematics, English Language Arts.**

## **MINING ENGINEERING TECHNOLOGIST (NOC 2212)**

**Do you like to problem solve, are interested in how things work, and are able to adapt to new technology? Are you organized, analytical with an eye for detail? If so, a career as an Mining Engineering Technologist might be the career for you.**

**As a Mining Engineering Technologist you will be part of a team that ensures smooth and efficient mine operation. You could work both on the surface and underground doing surveying, ventilation planning/installation, ground control, mine planning and supervision.**

**Students wishing to become a Mining Engineering technologist can take the two year certificate course offered by Saskatchewan Polytechnic.**

**Helpful High School Courses: Drafting and Computer-Aided Design 10/20/30, Energy and Mines 10/20/30, Physical Science 20, Earth Science 30, Physics, Pre-Calculus 30, Mathematics, English Language Arts**

## **HUMAN RESOURCE MANAGER (NOC 0112)**

If you enjoy people, like rules and regulations, and have no fear of reminding people of the rules or enforcing such regulations and policies, then this may be the field for you.

As a Human Resource Manager, you will work to make sure all company policies are followed consistently and that all Federal and Provincial Labour laws are correctly followed. You will help ensure a positive company image in the community and business climate. Other duties will include the training and development of all employees, interviewing prospective employees, coordinating benefit programs, and mediating grievance cases.

To be a Human Resource Manager, you will need a university degree. You may wish to study Administration or Human Resource Management and Industrial Relations at U. of Regina, or Human Resource Management at the Edwards School of Business at the U. of Saskatchewan. First Nations University offers a degree program in Human Resources as well as Certificate in Business Administration (Indian Management). Saskatchewan Polytechnic offers certificate and diploma programs in Human Resource Management.

**Helpful High School Courses:** Communication Studies, Law, Psychology, Social Studies, Native Studies, Mathematics, English Language Arts.

## **HEALTH AND SAFETY COORDINATOR (NOC 0112)**

Do you enjoy helping others learn new things and helping them perform them safely? Have you thought about a career in health services but don't want to deal with blood? Then consider becoming a Health and Safety Coordinator.

As a Health and Safety Coordinator, you will conduct all aspects of safety training, perform workplace inspections, review material safety data sheets, develop, implement and watch over the health and safety guidelines making sure all the employees know, understand and follow the safety rules and procedures. You may also provide training in mine rescue, first aid, and firefighting.

To become a Health and Safety Coordinator you will need a university degree in Occupational Health and Safety, a Mining Technology diploma from a College or Technical School, or designation as a Canadian Registered Safety Professional. You may need 2 years of apprenticeship or an equivalent of 5-10 years of experience and education to become a Coordinator.

**Helpful High School Courses:** Wellness, Physical Education, Psychology 20/30, Health Science 20, Mathematics, English Language Arts.

**SECURITY GUARD (NOC 6541)**

If you are someone who likes quiet time intermixed with occasional bursts of excitement, you like people, and you are calm under pressure, you might consider becoming a Security Guard.

As a Security Guard you will protect and safeguard mine site employees, secure of any company assets against loss, and be responsible for recording the entry and departure of all individuals to the site. In addition, you will monitor activities through electronic and visual surveillance. You will have to communicate with all areas of the mine site both verbally and in writing, and demonstrate sound judgment.

There are no set educational requirements for security guards. However, a high school diploma is required. Most employers also require guards to be bondable. Most workers in this field receive their training on the job. You may be required to obtain advanced first aid training as a First Responder or Emergency Medical Technician. You may also be required to obtain hazard training and emergency response training. Security Guards must be licensed by the Saskatchewan Government. There are on-line training courses available.

**Helpful High School Courses:** Physical Education, Mathematics, English Language Arts.

Artistic

## **DRAFTING TECHNOLOGIST/TECHNICIAN (NOC 2253)**

If you like drawing, computers, and pay attention to detail, you should consider a career as a Drafting Technologist/Technician.

Drafting Technologists develop and prepare engineering designs and drawing from preliminary concepts, sketches, engineering calculations, specification sheets and other data. They may also operate computer-aided design and drafting stations, develop and prepare design sketches, complete documentation packages, and produce drawing sets. Drafting technologists may also be responsible for checking and verifying that design drawings conform to specifications. Other duties include writing technical reports, preparing contracts and tender documents, and preparing construction specifications, costs and material estimates. Some in this field also supervise and train other technologists, technicians and drafters.

Drafting Technicians develop and prepare engineering drawings, plans, diagrams or layouts from sketches. They operate computer aided drafting equipment and/or a conventional drafting station and may also examine drawings to check for errors.

To become a Drafting Technologist or Technician you would need to take a college course. Saskatchewan Polytechnic offers diploma programs in CAD/CAM Engineering, Geomatics Technology and Computer Aided Drafting and Design (CADD).

Helpful High School Courses: Arts Education, Drafting and Computer Aided Design 10/20/30, English Language Arts, Mathematics.

Artistic

## **GRAPHIC ARTIST/ DESIGNER (NOC 5241)**

If you like drawing, computers, pay attention to detail and enjoy working with others, you should consider a career as a Graphic Artist or Designer.

A Graphic Artist or Designer could work in film media, animation, sound, images, and illustration. They could develop informational brochures, create logos, promotional materials, and design and update websites. The Graphic Artist would work with the Public Relations/Communications section of the company.

To become a Graphic Artist/Designer you could take a 2 year diploma in Graphic Communications. To become a Website designer you could take the certificate course in Website Design and Development from Saskatchewan Polytechnic.

Helpful High School Courses: Arts Education 10/20/30, Visual Arts 10/20/30, Graphic Arts 10/20/30, English Language Arts, Mathematics.

## **PUBLIC RELATIONS (NOC 1123, 0124)**

Are you someone who likes to persuade people, sell things and ideas. Do you find, business interesting? Do you see yourself as energetic, and sociable? If then perhaps a job in Public Relations would be something you would enjoy.

Public relations managers direct and evaluate the development and implementation of communication strategies and information programs, publicize activities and events, and maintain media relations on behalf of the company.

To work in the field of public relations you would require a university degree or college diploma in communications, public relations, business marketing, or journalism. The U. of Regina offers a bachelor of Business Administration (Marketing), as well as a Bachelor of Journalism. The U. of Saskatchewan offers a Bachelor of Commerce (Marketing). Saskatchewan Polytechnic offers a diploma program in Business Marketing, as well as New Media Communication.

To become a manager several years of experience in an advertising, public relations or in a communications officer position are required.

Helpful High School Courses: Arts Education 10/20/30, Visual Art 10/20/30, Photography, Communication Studies 20, Journalism Studies 20, Media Studies 20, English Language Arts, Mathematics.

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To become a manager several years of experience in an advertising, public relations or in a communications officer position are required.

Helpful High School Courses: Arts Education 10/20/30, Visual Art 10/20/30, Photography, Communication Studies 20, Journalism Studies 20, Media Studies 20, English Language Arts, Mathematics.

**INVESTMENT ANALYST (NOC 1112)**

Are you someone who likes to persuade people, sell things and ideas. Do you find business interesting? Do you see yourself as energetic, ambitious and sociable? If so then you just may be right for the job of an Investment Analyst.

An Investment Analyst collects and analyzes financial and investment information about companies, stocks, bonds and other investments. They provide investment advice and recommendations to senior company officials, prepare company, industry and economic outlooks and analytical reports.

To become an Investment Analyst you will need a bachelor's degree in commerce, business administration or economics. Both the U. of Regina and U. of Saskatchewan offer Bachelor's degrees in business Administration and Economics. The University also offers a Bachelor of Business Administration while the U. of Saskatchewan offers a Bachelor of Commerce. Some companies may require a master's degree in business administration (MBA) in finance may be required as well as the Chartered Financial Analyst (CFA) designation.

**Helpful High School Courses:** Accounting 10/20/30, Pre-Calculus, Economics 30, Mathematics, English Language Arts.

**LAWYER (NOC 4112)**

Are you someone who likes to lead and persuade people? Do you have a strong sense of justice, find politics and business interesting? Do you see yourself as energetic, ambitious and sociable? You could have the makings of a mining company lawyer.

Lawyers with a mining company advise the company of their legal rights and all matters related to law, research legal precedents and gather evidence, plead cases before courts of law, tribunals and boards; draw up legal documents, negotiate settlements of disputes, negotiate the development of a mine, and ensure that there are no cause for any legal challenges.

To become a lawyer you will usually need two years of undergraduate studies, write an LSAT law admission test, and complete a Bachelor's degree from a recognized law school. Then you have to successfully complete the bar examination and a period of articling. The U. of Regina offers Pre-Law where you can finish 2 years towards your law degree before moving to Saskatoon to finish the degree at the U. of Saskatchewan. The U. of Saskatchewan offers the complete Law degree.

**Helpful High School Courses:** Law 30, Psychology 20/30, Social Studies, Native Studies, Mathematics, English Language Arts.