

FOREST

CAREER GUIDE



Adapted from www.workwild.ca



ABORIGINAL RELATIONS

Forest Management Agreement areas often overlap with Aboriginal lands, which makes you a critical part of the forest industry. As an Aboriginal Relations Liaison, you help build and maintain effective relationships between the forest industry and Aboriginal people. Every planned activity in forestry operations that is in proximity of an Aboriginal community needs to go through an intensive consultation process. You are the one who works between your organization and Aboriginal communities to facilitate the consultation process. Cross-cultural understanding between people of Aboriginal and non-Aboriginal origin is important to you.

What You Need - High School Diploma and related forestry/communications experience

Where

Salary Range - \$22.50 to \$32.95 an hour

ACCOUNTANT

Your industry is forestry but your business is money. As an Accountant, you design and administer financial and accounting information for your particular business. You enjoy clear rules, developing innovative solutions to problems and logical analysis. You chose to apply your skills to the forest industry because of your love for small community living and values.

What You Need - Bachelor's Degree and certification from the Certified General Accountants' Association of Alberta

Where - Athabasca University, Grande Prairie Regional College, Grant MacEwan University, Mount Royal University, Northern Alberta Institute of Technology, Southern Alberta Institute of Technology, University of Alberta, University of Calgary, University of Lethbridge

Salary Range - \$26.91 to \$44.58 an hour

ADMINISTRATION

You work closely with nature in a laid-back, sustainable industry. You work as part of a team in Forestry Administration to ensure office tasks are properly performed. You oversee and implement administrative procedures while being organized and coordinated.

What You Need - No formal education required

Where

Salary Range - \$20.11 to \$27.56 an hour

BIOLOGIST, WILDLIFE/FISHERIES/PLANTS

You're investigative, detail-oriented and naturally curious. You're passionate about life and living organisms. As a Forestry Biologist, you conduct research to learn more about living organisms and ecosystems, manage natural resources, and develop new practices and products in diverse areas of study. You're a rugged scientist, spending half your time in the lab and the other half in the wilderness.

What You Need - Bachelor of Science Degree in Biological Sciences. Master of Science Degree

Where - University of Alberta, University of Calgary, and University of Lethbridge

Salary Range - \$26.73 to \$62.00 an hour

BOILERMAKER/WELDER

You're a risk-taking physical specimen who works with boilers, tanks and pressure vessels, sometimes even in dangerous situations. As a Boilermaker, you work with metal to erect and install boilers and related equipment. You're constantly excited about working with tools and machinery that vary and require precision.

What You Need - Either a registered apprenticeship, journeyperson certification, recognized trade certificate

Where - Alberta Apprenticeship and Industry Training

Salary Range - average \$32.89 an hour

CHEMICAL ENGINEER

You have a stick in one hand and a golf ball in the other. What would you do? As a Chemical Engineer, you'd discover the process of how to turn the stick into the golf ball. Mills are responsible for transforming raw materials into a variety of end products and you are responsible for choosing and understanding the science of how this happens. You develop processes, select equipment and offer management for the production of forestry materials.

What You Need - Bachelor of Science in Engineering (Chemical Engineering)

Where - University of Alberta, University of Calgary

Salary Range - \$44.18 to \$56.66 an hour

CHEMIST

Particles, molecules and bears, oh my! You are a woosy Chemist who researches the properties and composition of elements and compounds. You apply chemical principles to develop a wide range of products and processes related to forestry. Wood is a chemical composite of many elements and it is your responsibility to chemically establish the process of how to turn this chemical composite into multiple end uses.

What You Need - Bachelor of Science Degree in Chemistry

Where - Concordia University College of Alberta, The King's University College, University of Alberta, University of Calgary, University of Lethbridge

Salary Range - \$28.03 to \$45.00 an hour



COMMUNITY RELATIONS/COMMUNICATIONS

You're the bridge between your organization and the public, and you shape the organization's image according to their standard of representation. As a Community Relations Representative, you facilitate communication links between the business and the audiences they'd like to reach. You're a written and oral communications whiz who maintains the vital communications of your company.

What You Need - Degree or Diploma in a communications related field

Where - Athabasca University, Grant MacEwan University, Lethbridge College, Mount Royal University, University of Alberta, University of Calgary

Salary Range - \$25.48 to \$36.90 an hour

CRANE OPERATOR

There's heavy machinery and then there's the machinery that moves it. This is the kind of powerful equipment that you're the master of. As a Crane Operator, you operate the hoist and swing equipment used to move large objects like logs. You have the talent to manipulate multiple pedals and levers simultaneously to manoeuvre sophisticated equipment.

What You Need - Either a registered apprenticeship, journeyperson certification or recognized trade certificate

Where - Alberta Apprenticeship and Industry Training

Salary Range - \$27.46 to \$37.52 an hour

ECOLOGIST

If a forest is cut instead of burned, how does that alter different organisms? As an Ecologist, it's up to you to answer this question and more. You study the relationships of living things to one another and their environment, and examine the environmental factors that effect forests. You may or may not defy the stereotypical vision of the bearded, outdoorsy ecologist and you always say a bad day in the bush is better than a good day in the office.

What You Need - Bachelor of Science in Biological Sciences

Where - University of Alberta, University of Calgary, and University of Lethbridge

Salary Range - \$26.73 to \$62.00 an hour

ELECTRICAL ENGINEER

You are analytical, apt in math and science, and would never cut the blue wire after the yellow wire when it is crossed with the red wire. As an Electrical Engineer, you work with systems that generate and operate electromagnetic energy or electrically coded information. In forestry, you design the electrical operation of mills for maximum production. To ensure a safe environment, you are electrically innovative and detail-oriented.

What You Need - Bachelor of Science in Engineering (Electrical Engineering)

Where - University of Alberta, University of Calgary

Salary Range - \$36.54 to \$60.56 an hour

ELECTRICIAN

You segue effortlessly from one important industry into another: from electrical power to forestry. As an Electrician, you repair and maintain the electrical systems that power forestry mills. You get to use your electrical knowledge to power a sustainable industry, while enjoying the laid-back and outdoor lifestyle.

What You Need - Either a registered apprenticeship, journey person certification or recognized trade certificate. Related training

Where - Alberta Apprenticeship and Industry Training

Salary Range - \$24.35 to \$44.13 an hour

ENVIRONMENTAL COORDINATOR/ENVIRONMENTAL MANAGEMENT SYSTEMS COORDINATOR

Reduce, reuse and recycle—words you live by. Forestry is a sustainable industry and you ensure it operates accordingly. As an Environmental Coordinator, you ensure that mills are run in an environmentally-friendly manner. Your small goal is to generate environmental improvements and your big goal is to preserve the environment for future generations.

What You Need - Bachelor's Degree in Environmental Science

Where - University of Alberta, University of Calgary

Salary Range - \$26.53 to \$37.64 an hour

GRADER

Logs eagerly await your critical eye and approval. They want to become hardwood for dancing, pencils for writing or flutes for fluting and you're the one who determines their future. As a Log Grader, you are finicky about log characteristics and determine the grade according to established criteria. The logs think you're ruthless, but you're just doing your job.

What You Need - No formal education required. Grade schools are attended after hire for quality certification

Where

Salary Range - \$23.00 to \$31.00 an hour



GIS SPECIALIST/ANALYST

You're a modern day Christopher Columbus. You combine your innate sense of direction with computer-based Geographical Information Systems to create and maintain information in maps and databases. As a GIS Specialist, you use related software to gather and analyze spatial data in order to create maps and graphs for use in forest management.

What You Need - Diploma or Degree in Geography, Forestry or Science with a strong background in computer science and remote sensing

Where - Lethbridge College, Northern Alberta Institute of Technology, Olds College, Southern Alberta Institute of Technology, University of Lethbridge, University of Alberta, University of Calgary

Salary Range - \$23.60 to \$36.95 an hour

HARVESTING OPERATOR

Your job is like a massive, real-life video game. You've acquired the hand-eye coordination needed to operate your increasingly sophisticated equipment. As a Harvesting Operator, you are the controller of massive machinery and timber is at the mercy of your levers and pedals. You have the skill and concentration to mechanically establish, develop and harvest forests. Your physical strength and stamina enables you to endure your strenuous yet rewarding job. You flex your brain as much as your muscles in order to meet your biodiversity objectives, such as habitat creation and disturbance reduction.

What You Need - No formal education required

Where - Training available at Northern Lakes College, Olds College and Woodland Operations Learning Foundation

Salary Range - \$17.57 to \$24.49 an hour

HUMAN RESOURCES

You're personable, relatable and sensitive. You're not in the personals; you're in Human Resources. As a Human Resource Professional, you're responsible for facilitating the effective use of human resources to reach organizational goals and objectives. You recruit professionals, and plan training and development systems all while maintaining proper labour relations. You're a myriad of talent that is able to manage a multitude of personnel.

What You Need - Degree or Diploma in a field related to human resource management

Where - Athabasca University, Bow Valley College, Grant MacEwan University, Keyano College, Lakeland College, Mount Royal University, Northern Alberta Institute of Technology, University of Alberta, University of Calgary, University of Lethbridge

Salary Range - \$24.00 to \$59.50 an hour

HYDROLOGIST

You drink water, you're made up of water and you prefer to study water. As a Hydrologist, you solve water related problems by applying scientific and mathematical knowledge. You often work in remote and rugged locations conducting field investigations to understand and manage the harmonious relationship between forests and water.

What You Need - Bachelor of Science Degree in Hydrology. Bachelor of Science in Engineering (Environmental)

Where - University of Alberta, University of Calgary, and University of Lethbridge

Salary Range - \$40.80 to \$60.85 an hour

INSTRUMENT TECHNICIAN

Some may think you're nitpicky, persnickety or finicky but you find those just tiny, insignificant details. As an Instrument Technician, you install, maintain, repair and troubleshoot the measuring and control precision instruments used in your mill. You possess the patience needed to perfectly measure and control variables such as pressure, flow, temperature, level, motion, force and chemical composition.

What You Need - Either a registered apprenticeship, journey person certification or recognized trade certificate

Where - Alberta Apprenticeship and Industry Training. Training offered at Grande Prairie Regional College, Lakeland College in Vermilion, Northern Alberta Institute of Technology (NAIT), Red Deer College, Southern Alberta Institute of Technology (SAIT)

Salary Range - \$28.61 to \$39.24 an hour

IT AND COMPUTER SYSTEMS

You're proud to be called the forestry nerd. From support to ordering to handling, you're the person responsible for all that relates to computers in the forest industry. Fluent in cybercrud, you install, service and configure computer systems and networks in your mill to ensure day-to-day operations run smoothly and up to par.

What You Need - High school diploma and related training and/or experience

Where - Academy of Learning, Bow Valley College, Cypress College, Grande Prairie Regional College, Medicine Hat College, Northern Alberta Institute of Technology (NAIT), Northern Lakes College, Red Deer College, Southern Alberta Institute of Technology (SAIT)

Salary Range - \$20.81 to \$66.71 an hour

LAWYER

You have a strong code of ethics and a sense of responsibility to the land. As a Forestry Lawyer, you use your skills of persuasion to represent your clients in a multitude of forest activities. One day you could oversee land use and forest practices and the next you could be litigating forestry disputes, such as challenges to forestry operations. You are a proud representative of the forest industry and you ensure analytical and quick responses to forestry matters.

What You Need - Two to four years in an undergraduate degree program, a three year Bachelor of Laws (LLB) degree from an accredited law school, and one full year in an articling position (student-at-law)

Where - University of Alberta and University of Calgary offer undergraduate and LLB degree programs. It is your responsibility to obtain an articling position

Salary Range - \$37.96 to \$71.83 an hour



MECHANIC

Skidders, delimiters, slashers and chippers are just some of the sophisticated, and aptly named, equipment that you're the master of. As a forestry Mechanic, you have the skills and knowledge to maintain and repair the complicated electrical, hydraulic and transmission systems and engines for a variety of forestry equipment.

What You Need - Either a registered apprenticeship, journeyperson certification or recognized trade certificate

Where - Alberta Apprenticeship and Industry Training

Salary Range - \$24.31 to \$38.22 an hour

MECHANICAL ENGINEER

You have the contradictory ability to be practical and conceptual, concrete and visual. Your mechanical inclination combined with your child-like imagination enables you to visualize three-dimensional objects from your two-dimensional drawings. As a Mechanical Engineer, you design and evaluate forestry machines and oversee their development and operation. Without you, manual bush whacking would be in style.

What You Need - Bachelor of Science in Mechanical Engineering

Where - University of Alberta, University of Calgary

Salary Range - \$35.66 to \$58.62 an hour

MILL MANAGER

You're a leader, a coordinator, a director—you're a manager, responsible for leading your organization to victory. As a Mill Manager, you oversee all operations and personnel in the plant from order to shipment. You are responsible for mill efficiency but you operate as part of a team that you motivate to strive for the same goal.

What You Need - No standard educational requirement but a related degree or diploma in business and engineering is recommended

Where - Grant MacEwan University, Mount Royal University, Northern Alberta Institute of Technology, Southern Alberta Institute of Technology, University of Alberta, University of Calgary

Salary Range - \$35.20 to \$50.64 an hour

MILLWRIGHT/PIPEFITTER

You don't perform miracles but you do turn blueprints into machinery. As a Millwright, you install, maintain and repair stationary industrial machinery and mechanical equipment by interpreting blueprints and assembling parts. You are able to visualize layouts and can easily troubleshoot mechanical systems. From programming your computer to getting your hands dirty, your hours in the day are never the same.

What You Need - Four-year trade apprenticeship. Technical training. Find a suitable employer who is willing to hire and train an apprentice

Where - Grande Prairie Regional College, Keyano College in Fort McMurray, Northern Alberta Institute of Technology (NAIT), Red Deer College, Southern Alberta Institute of Technology (SAIT)

Salary Range - \$27.22 to \$38.34 an hour

OPERATIONS FORESTER (RPF)/FOREST TECHNICIAN (RPFT)

For you, unfinished business is risky business. You're always one to follow through in life and in the thickets. As an Operations Forester or Forest Technician, you make forest plans come to life. It's up to you to choose the state-of-the-art technology and high-tech machinery to meet a variety of objectives. Depending on your level of education, you may deliver these results from the comfort of your desk or as you conquer the wilderness. You love being surrounded by lush forest and you ensure forest plans are carried out in a way that retains the natural beauty.

What You Need - Bachelor's Degree in Forestry or Diploma in Forest Technology. Outdoor experience recommended

Where - University of Alberta or Northern Alberta Institute of Technology (NAIT). Program can be started at Northern Lakes College or Portage College. Alberta Junior Forest Rangers provides work related forestry experience

Salary Range - Forest Technician \$16.30 to \$29.27 an hour • Forester \$29.92 to \$38.45 an hour

PLANNING FORESTER (RPF)/FOREST TECHNICIAN (RPFT)

You enjoy working outdoors and are physically hardy. As a Planning Forester or Forest Technician, you have many skills and responsibilities. Depending on your level of education, you may conduct your woodsy business in the great outdoors or your cozy office. You are a designer of the wilderness and your designs maximize timber production and attractiveness. Protecting forests is high on your priority list as you plan and direct forestation and reforestation projects. Forests are your pride and you manage them by achieving an economic, recreational and environmental balance.

What You Need - Bachelor's Degree in Forestry or Diploma in Forest Technology. Outdoor experience recommended

Where - University of Alberta or Northern Alberta Institute of Technology (NAIT). Program can be started at Northern Lakes College or Portage College. Alberta Junior Forest Rangers provides work related forestry experience

Salary Range - Forest Technician \$16.30 to \$29.27 an hour • Forester \$29.92 to \$38.45 an hour

PILOT

You're the ace of the aircraft that travels to places that only few will. As a Pilot in the forest industry, you're responsible for bringing people to remote areas so they're able to perform their jobs. You are vital to the industry because you often make seemingly inaccessible forests accessible with your aviation skill.

What You Need - Pilot's License

Where - Aviation Schools are available across the province

Salary Range - \$20.74 to \$46.34 an hour



PLUMBER

You are mechanically-inclined, agile and strong. Piping is what you know and plumbing is what you love. As a Plumber in forestry, you are responsible for the large piping systems that are used for the pressure vessels and boilermakers. You challenge yourself by working in awkward spaces in order to satisfy your desire for proper water flow. You're good with your hands but also have the technical skill to input your data and log your work.

What You Need - Either a registered apprenticeship, journey person certification or recognized trade certificate. Related training

Where - Alberta Apprenticeship and Industry Training

Salary Range - \$30.09 to \$38.16 an hour

POWER ENGINEER/ STEAM CHIEF

How does your TV work? How does your car engine work? What's the difference between a rocket engine and a plane turbine? As a Power Engineer, you have obtained the knowledge to answer these questions. You apply your understanding of power to large industrial equipment, including boilers, to ensure the safe and efficient operation of forestry mill equipment. You operate and maintain the machinery that powers the mill you work in.

What You Need - Certification from the Alberta Boilers Safety Association (Third Class, Second Class, First Class)

Where - Alberta Boilers Safety Association. Training available at Northern Alberta Institute of Technology (NAIT) and Southern Alberta Institute of Technology (NAIT)

Salary Range - \$29.77 to \$44.36 an hour

PRODUCTION TECHNICIAN

You're a smart worker who decided to start in an entry-level position so you're able quickly move up in the industry. As Production Technician in Forestry, you work hard to ensure production runs smoothly from the bottom up. You're strong, physically hardy and enjoy the great outdoors. This is the start of your long career in a sustainable industry.

What You Need

Where - No formal education required

Salary Range - Minimum \$17.00 an hour

ROAD CONSTRUCTION AND MAINTENANCE OPERATOR

The road less travelled is the road you intend to be on. You have an affinity for the outdoors that you are responsible for paving the way to. As a Road Construction Operator, you spend most of your time outdoors monitoring road construction, transporting culverts, tracking bridge and culvert inventory, and ensuring roads are properly graded. You often use high-tech equipment, like Global Positioning Systems (GPS), to navigate road construction in forests. It is your job to help get people to various industry operations throughout Alberta

What You Need - No formal education is required

Where

Salary Range - \$23.21 to \$29.42 an hour

SALES AND MARKETING

With the multitude of end products in the industry, you sell or market a possible variety of forestry related products. As an employee in Sales or Marketing, you are partly responsible for the profitability of the industry. You chose this industry because of your affinity to the wilderness, your professionalism, energy and persuasive communication skills.

What You Need - Business related post-secondary education

Where - Athabasca University, Grande Prairie Regional College, Lethbridge College, Medicine Hat College, Mount Royal University, Northern Alberta Institute of Technology, Red Deer College, Southern Alberta Institute of Technology, University of Alberta, University of Calgary, University of Lethbridge

Salary Range - \$29.92 to \$47.89 an hour

SCALER

You love the outdoors, timber and how the two size up. As a Timber Scaler, you measure logs or trees to determine volume, inspect for defects and estimate the amount of timber that is suitable for structural uses. You have the ability to keep your numerical and computer skills sharp while working even in very cold climates.

What You Need - No formal education required. Certification is available. Forest education is valued (RPF/RPFT)

Where - Hinton Training Centre

Salary Range - \$16.30 to \$29.27 an hour

SILVICULTURE CONTRACTOR

You're passionate about the environment and prefer to spend your summers being at one with nature and your winters waging war against the pine beetles. As a Silviculture Contractor, you make and nurture baby forests through regeneration, cultivation and reforestation projects. You are vital to the forest industry because you are responsible for putting the forest in forestry. The physicality of your responsibilities makes you part of the most physically fit team in the industry.

What You Need - There are many job titles, but you could be a tree planter, regeneration surveyor, herbicide applicator, or cone picker

Where - No formal education required. Many are Registered Professional Forest Technicians with training as such

Salary Range - \$125.00 to \$300.00 a day.



SILVICULTURE FORESTER (RPF)/FOREST TECHNICIAN (RPFT)

You're alone in the woods and you're not lost. As a Silviculture Forester or Forest Technician, you often work alone in remote locations and that's just the way you like it. You work with seasonal contractors and manage programs to control the establishment, growth, quality and health of forests. You analyze forests to maximize production and minimize negative impacts on the land, water and wildlife. You conduct experiments, analyze data and write reports—all in the name of Mother Nature.

What You Need - Bachelor's Degree in Forestry or Diploma in Forest Technology. Outdoor experience recommended

Where - University of Alberta or Northern Alberta Institute of Technology (NAIT). Program can be started at Northern Lakes College or Portage College. Alberta Junior Forest Rangers provides work related forestry experience

Salary Range - Forest Technician \$16.30 to \$29.27 an hour • Forester \$29.92 to \$38.45 an hour

SOIL SCIENTIST

Your day on the job starts and ends in soil, and you know that dirt is just the stuff under your fingernails. As a Soil Scientist, you study the properties of soil and the processes that occur in soil. Growing trees impact soil and vice versa, therefore your green-collared job is to manage soil resources for the production and protection of forests.

What You Need - Bachelor's Degree in Environmental Engineering, Land Reclamation, Agriculture, Forestry, Biological, Earth or Environmental Sciences with a specialization in Soil Sciences

Where - University of Alberta, University of Calgary, and University of Lethbridge

Salary Range - \$39.60 to \$49.05 an hour

TREE FALLER

You're an adrenaline junkie, you 'do it for the thrill', and danger is your middle name. Your forestry job is like every action-packed phrase and that's exactly why you do it. As a Tree Faller, you're part of forestry's extreme team that eliminates pine beetle trees, helps control fires and does low-impact harvesting through precision cutting of trees. Your tools are axes, chainsaws and your hands as you fell trees using knowledge of tree characteristics and cutting techniques. Although tree falling is physically demanding, it's also taxing on your brain. You have to keep physics in mind during high-stress periods because it's your responsibility to be precise as to where your trees fall to minimize danger and damage.

What You Need - No formal education is required but outdoor experience is recommended

Where

Salary Range - \$17.57 to \$24.49 an hour

TRUCK DRIVER

It's just you and the open road...and a truck full of materials. You enjoy driving and are methodical in your approach. As a Truck Driver in forestry, you operate gasoline or diesel-powered logging trucks to transport goods and materials over local routes or long distances. You often work long hours but you don't mind because you're always surrounded by beautiful Canadian scenery. Here's a bonus; you can make a year's salary in a couple months and be free to enjoy the summer however you please!

What You Need - Class 1 License and satisfy pertinent medical requirements

Where - Truck driving schools are available. Check out Cutbank Trucking, Grande Prairie

Salary Range - \$22.26 to \$29.65 an hour

WILDLAND FIREFIGHTER

You are the picture of health and physical fitness. You're in the business of saving lives and saving forests. As a Fire Fighter, you enter extremely dangerous conditions to suppress fires in remote locations. You are either part of a helitack or firetack crew. Essentially, you attack fires—safely. Your work is physically demanding but you're continuously up for the challenge.

What You Need - Successful completion of a training program approved by Alberta Sustainable Resource Development (ASRD)

Where - Alberta Sustainable Resource Development

Salary Range - \$21.80 to \$33.20 an hour

WOODLANDS MANAGER

You're the go-to person for woodlands media inquiries, woodlands staff and government relationships. As a Woodlands Manager, you oversee woodlands operations and ensure a steady flow of fiber to mills. Your innovative skills in the thickets and in production improvement make you apt to motivate and lead your employees to forest victory.

What You Need - Bachelor's Degree in Forestry or Diploma in Forest Technology with extensive industry experience

Where - University of Alberta or Northern Alberta Institute of Technology (NAIT). Program can be started at Northern Lakes College or Portage College. Alberta Junior Forest Rangers provides work related forestry experience

Salary Range - \$49.79 to \$63.31 an hour





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