

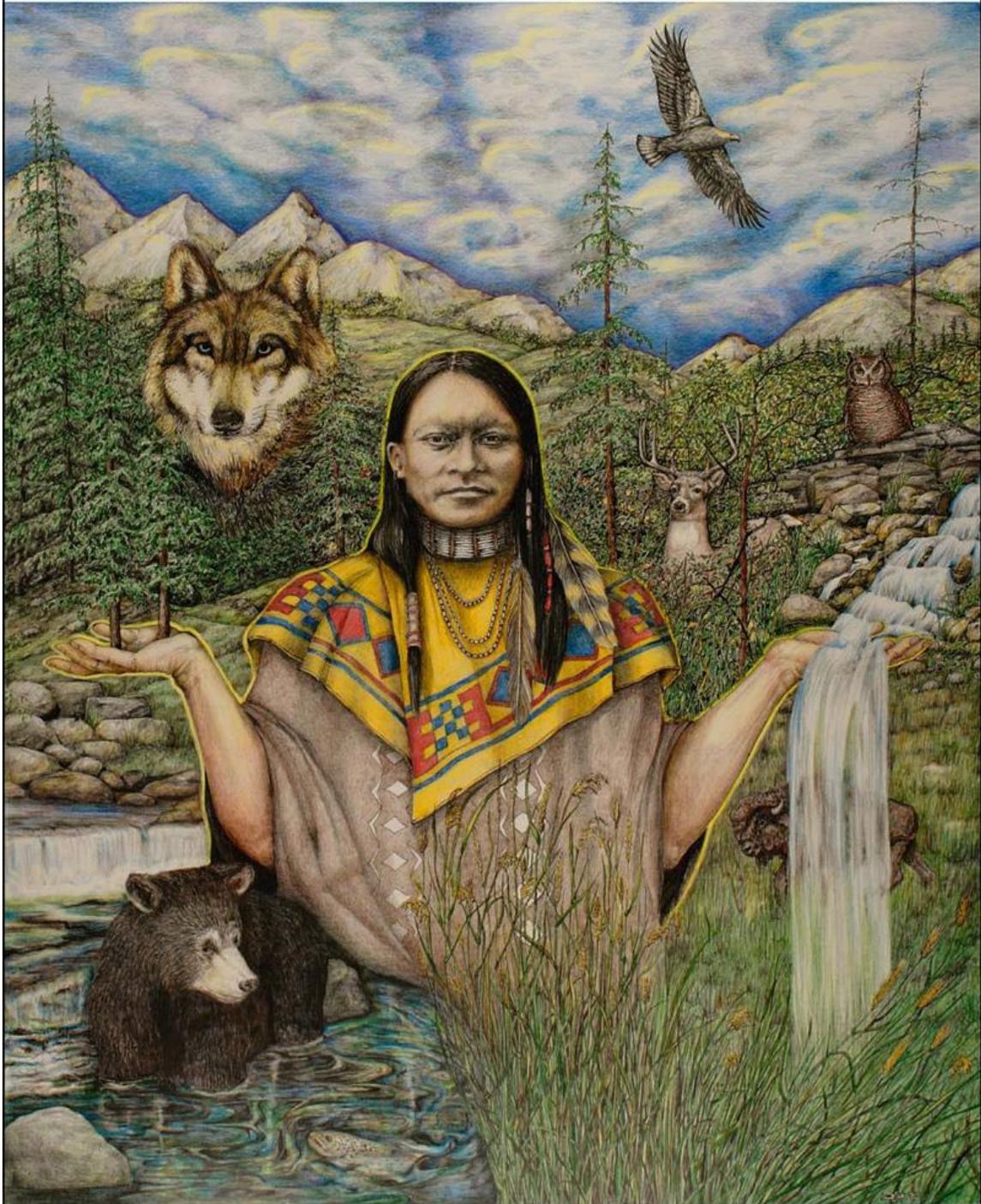
# United Tribes Technical College

Job Analysis/Labor Market Assessment  
July 15, 2008



A joint initiative by the Partnership for Environmental Technology Education (PETE)  
and the Advanced Technology Environmental and Energy Center (ATEEC).  
Funded by the National Science Foundation (NSF)

A National Collaboration to Strengthen the Advanced  
Environmental Technology Education Programs at  
Tribal Colleges



**NSF DUE Project Number: 0702247**  
Partnership for Environmental Technology Education (PETE)  
584 Main Street  
South Portland, ME. 04106

**Overview:**

On July 15<sup>th</sup> of 2008, the Advanced Technology Environmental and Energy Center (ATEEC), representing the Partnership for Environmental Technology Education (PETE) Tribal Grant (DUE Project Number: 0702247), visited United Tribes Technical College (UTTC) located in Bismarck, North Dakota to facilitate a job/labor market assessment workshop in the field of environmental science on the reservation and throughout the region. UTTC is one of three Tribal colleges in the nation selected to receive technical assistance through the grant this year.

UTTC indicated that a job market/labor market assessment for the reservation and the region would allow UTTC to better design relevant curriculum in their environmental science courses. As a result, students would be better prepared to enter the workforce on or off the reservation. UTTC administrator, Dr. Jen Janecek Hartman invited representatives to the workshop who work throughout the state, region, and the reservations to participate in the discussion. The information gathered in this report will align curriculum being taught at UTTC with jobs that are available on the reservations and surrounding areas of North Dakota and South Dakota. UTTC mentioned they would like participants to focus on available jobs that require only a two-year degree and to think about the following fields:

1. GIS
2. H<sub>2</sub>O Quality
3. Fire Safety
4. Hazmat
5. Soil Conservation

**Job/labor market assessment area covered:**

North Dakota, the reservations, and surrounding areas.



### **PETE/ATEEC Partnership**

ATEEC, a strategic partner with PETE, conducts national labor market research in the fields of environmental science and energy technologies. Their latest 2008 reports on *Defining Environmental Technology* and *Defining Energy Technologies and Services* can be found on ATEEC's Web site at [www.ateec.org](http://www.ateec.org). It was recognized that in the case of Tribal colleges, separate assessments could be utilized to account for the unique needs of the reservations. In the case of UTTC, it was recognized that a more focused labor market assessment could be utilized to meet their needs more accurately.

ATEEC, with special expertise in the areas of job market research, curriculum development, and facilitation opened the discussion at UTTC to find out the following:

- What jobs are available or upcoming for people with two- year degrees?
- What skills are needed?

**Facilitators:** Ellen Kabat-Lensch and Tim Hunter

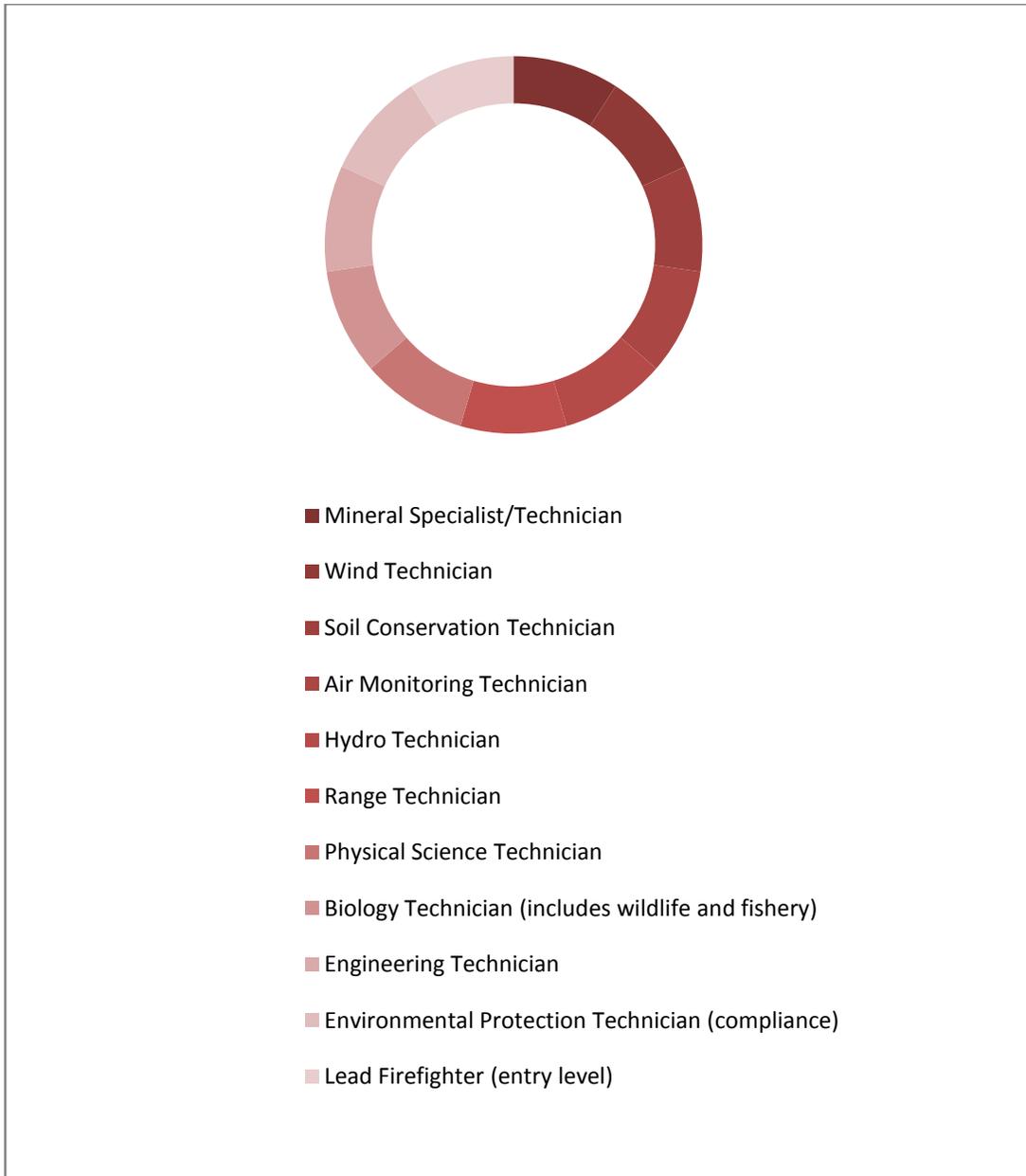
### **Attendees:**

This report reflects the thoughts of the participants who were present at UTTC. They represent multiple organizations, interests, and concerns on and off the reservations of North Dakota.

Dr. Jerry Combs	Grand Forks, Human Nutrition Lab/Director
Dr. Bill Kemp	United States Department of Agriculture, Agricultural Research Service, Fargo Center Director
Dr. David Smith	United States Department of Agriculture, Agricultural Research Service, Fargo Center Scientist
Chad Bourgoin	United States Department of Energy/Western Area Power Administration, Environmental Protection Specialist
Maury Sand	Dakota Prairie Grasslands, Fire Management Officer
Dave Pieper	Dakota Prairie Grasslands, Fire Management Officer
Susan Samson-Leibig	United States Department of Agriculture, Natural Resources Conservation Service, Soil Quality Specialist
Dr. Margi Coyle	Dickinson State University, Instructor
Dr. Bull Bennett	North Dakota Association of Tribal Colleges, Science Coordinator
Carol Aron	United States Fish and Wildlife Service, Biologist

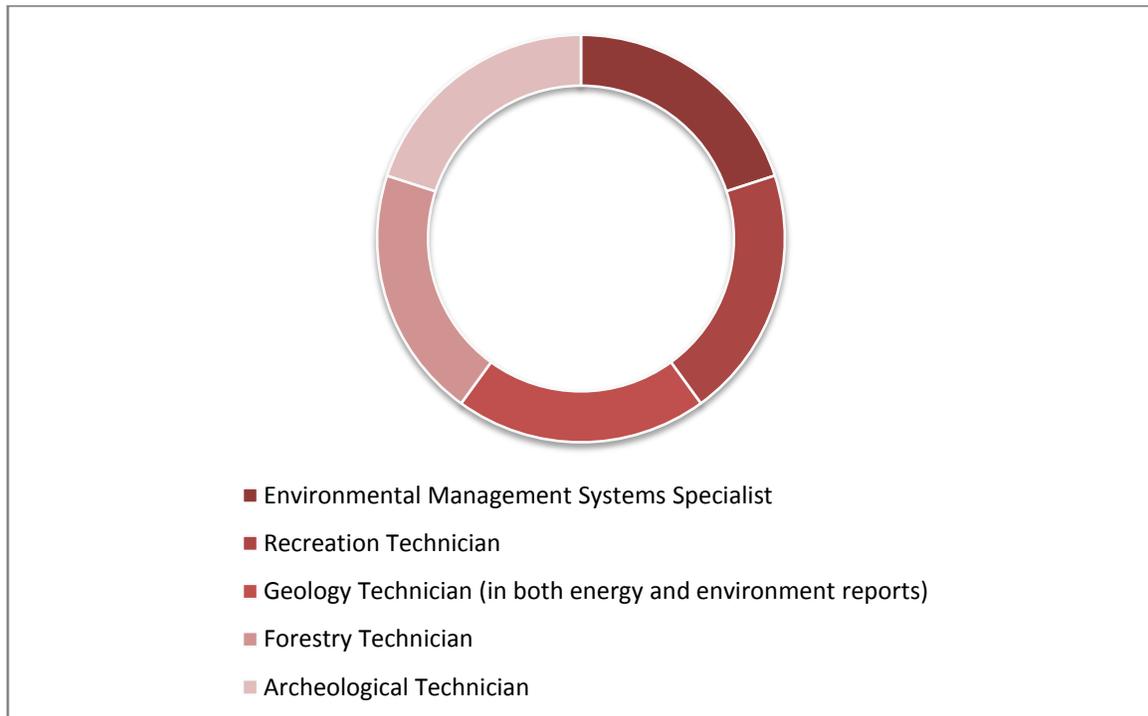
## High Growth Jobs in North Dakota and Surrounding Regions:

These job titles represent the group consensus on the types of jobs that will be likely to grow rapidly and be in high demand in North Dakota and the surrounding regions. *See Appendices for specific job functions* for these job titles as defined in the *Defining Environmental Technology* and *Defining Energy Technologies and Services* reports from ATEEC.



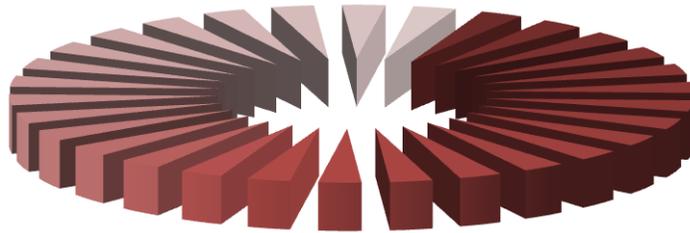
## Low Growth Jobs in North Dakota and Surrounding Regions:

The group was also asked to decide what occupations would still be needed and are important, but represent a smaller or slower growing demand for workers. The chart below represents this data.



## Cross-Cutting Skills/Knowledge:

To give UTTC more data that they can use to enhance their curriculum and meet the needs of the workforce, the group was asked to identify what skills and knowledge should be common in all of the jobs listed. These skills were recognized by the group to be important and in some cases essential in order to be successful in reference to the jobs listed.



- Drug and alcohol free
- Generalist (solid foundational skills)
- Communication skills (technical writing, oral, logic, reading, debates/argument, reasoning)
- Computer skills (Word, Excel, PowerPoint, and Access)
- Basic math skills (at least college algebra) (metric system, descriptive stats, sampling theory)
- Summer internships/experiences and also field courses (apply in October/November)
- Specific technical training (i.e., GIS, instrumentation, air monitoring, water sampling)
- Ability to apply for state, federal, private jobs (keywords)
- Most agencies train own people (rapidly changing technology makes it difficult to learn at a college)
- Interview skills (how to write a resume)
- Management skills/business skills
- Entrepreneurialism
- HAZWOPER training
- OSHA training
- Socialized to the expectation of the work environment
- Basics of environmental law
- Teamwork skills
- Empowerment to question, take initiative, problem solve
- Acceptance to fail - learn to move on.
- Accountability
- Produce work/product as team member as well as individually
- Basic lab techniques and equipment usage (pipettes, microscopes, pH meters, balances, etc.)
- Job Hunting/searching skills (basic resources)
- Basic research skills (Internet, library, etc.)
- Networking skills
- Attend professional meetings/workshops (guided by college)
- Leadership Skills
- GIS Skills
- Compliance
- Sampling (phase assessment)

# Other Considerations for United Tribes Technical College from the Participants

The participants urged UTTC to take advantage of local expertise (local agencies, state, federal, private) by forming partnerships, activities, and work programs. They also urged UTTC to find creative ways to enhance their program with limited resources (train-the-trainer, faculty development opportunities, wet lab courses, etc.)

## Summary

UTTC hosted a job/labor market assessment workshop at their college in Bismarck, North Dakota. Dr. Jen Janecek Hartman invited professionals representing various agencies on and around the reservations of North Dakota and areas of South Dakota. The day was used to assess the job market in these areas. UTTC has indicated they will use this information to align with their existing curriculum and to develop new programs to better prepare their students for available jobs and skills needed on and off the reservations. The day was facilitated by ATEEC.

Participants identified high and low growth jobs that are needed both now and in the future. Other discussions involved the types of technical, experiential, and underlying life skills that are needed to be successful when entering the jobs listed. ATEEC captured the group's thoughts and organized the information into this report.

## Recommendations from ATEEC

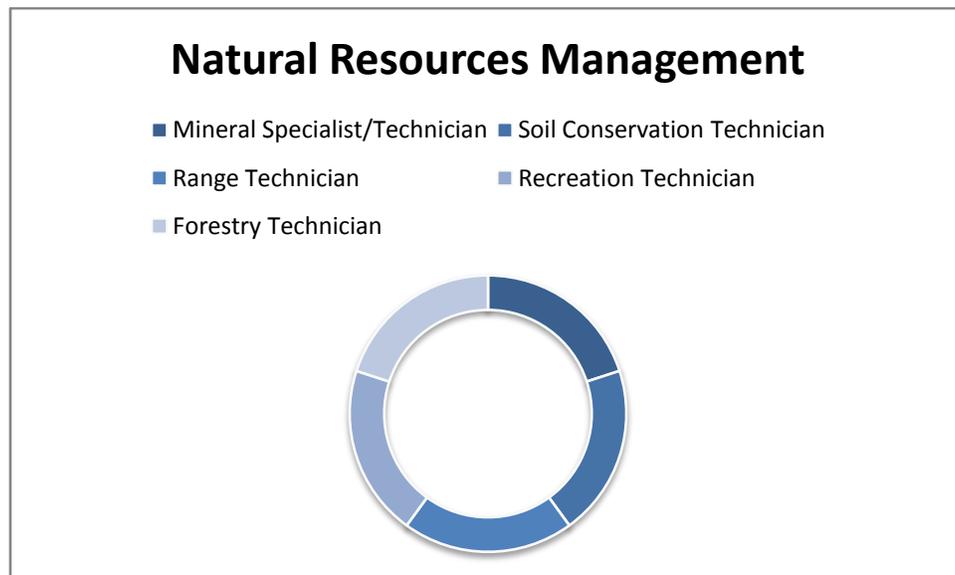
ATEEC recognizes its role in this case is that of a facilitator to a process that will be used to improve curriculum and student success. In this role, we can offer recommendations; however it is understood that achieving these objectives can be more complex than we realize. With this preface, we have a few recommendations to UTTC based unilaterally on what we observed during our visit that day and the experience we possess in curriculum development.

- Offer experiential activities in the forms of field exercises, hands-on labs, field trips, etc.
- Utilize local and state agencies to form partnerships that will maximize potential for internship programs. Forming partnerships benefits both organizations involved.
- If equipment and resources do not exist or are not feasible at UTTC, work with partners to offer hands-on activities or traveling labs.
- Require or highly recommend a life skills course that involves how to interview, write a resume, find and apply for government jobs, etc.

## Job Functions as defined by ATEEC

The job titles identified in this report align with many of those as defined by ATEEC in their nationwide 2008 *Defining Environmental Technology* report and *Defining Energy Technologies and Services* report. The job titles identified in this UTTC report were put into the categories that are identified in ATEEC's national reports. As a result, ATEEC can offer a listing of general job functions for those particular job titles that are listed below.

These job functions could help UTTC identify skills that need to be taught to students who decide to enter these particular fields. The information could also be used to design curriculum activities and/or materials. It should be noted that ATEEC understands many of these job functions may not apply to jobs in North Dakota and the reservations so it is stressed that these are guidelines for further research and in no manner a definitive list of job functions for each of the job titles listed. UTTC may decide to host other forums with employers to identify more specific job functions related to the areas they serve.



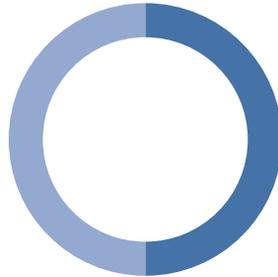
- Inventory, evaluate, and assist in development of resource management strategies for areas with unique scenic, recreational, historical, cultural, geological, habitat, species, or other resource values.
- Conserve natural resources.
- Assist in development of plans for the protection, maintenance, rehabilitation, or enhancement of natural resources.
- Assist in operational forestry.
- Assist in forest nursery programs.
- Inventory forest stands.

- Assist in preparation of fire suppression and prescribed burning plans.
- Carry out prescribed burning activities.
- Assist in development of fire management plans.
- Fight forest fires.
- Assist in laying out timber sales (e.g., marking trees to be logged).
- Compile, verify, and analyze timber appraisals.
- Cruise timber (i.e., measure height and circumference of trees).
- Scale (i.e., measure) and cut logs.
- Conduct and interpret surface and ground water inventories, studies, and watershed analyses.
- Examine and interpret water quality and quantity from streams and aquifers.
- Implement plans to improve aquatic habitats.
- Implement farm pond management techniques.
- Sample and identify aquatic organisms.
- Identify and delineate wetlands based on plant/animal species and hydrology.
- Implement wetland restoration and construction activities.
- Operate boats.
- Perform fish population studies using seining, trawling, and electroshock equipment.
- Operate fish hatchery equipment.
- Practice techniques of aquaculture.
- Stock lakes and streams with fish.
- Participate in tag/release and tracking studies for fish and wildlife.
- Identify and participate in the introduction of rare/endangered species to an ecosystem.
- Implement urban wildlife management strategies.
- Rehabilitate injured wildlife for release.
- Trap and relocate wildlife.
- Calculate rates of sediment production.
- Determine soil and bedrock types and characteristics.
- Identify fossil and rock samples.
- Implement soil conservation practices.
- Implement erosion control strategies.
- Create geo-reference imagery.
- Collect, manage, and integrate spatial and attribute data using applicable geospatial technologies.
- Determine appropriate map projections and coordinate systems.
- Use aerial photography.

- Use geological maps and reports.
- Assist in habitat restoration.
- Identify and control noxious weeds.
- Propagate and plant woody and non-woody plant species.
- Handle pesticides and herbicides.
- Perform ecosystem sampling and monitoring.
- Install, calibrate, operate, maintain, troubleshoot, and repair equipment.
- Analyze and interpret sampling and monitoring data.
- Decontaminate sampling and monitoring equipment.
- Label, preserve, store, and ship samples.
- Follow chain-of-custody procedures for sample collection and handling.
- Follow established quality control procedures.
- Perform park maintenance.
- Develop and deliver public information and environmental education programs.
- Participate in the assessment of environmental impact of proposed development projects.
- Apply appropriate local, state, Tribal, and federal environmental regulations to specific projects.
- Enforce local, state, Tribal, and federal natural resource regulations.
- Assist in making recommendations to federal, Tribal, state, local, and private organizations.
- Assist in preparation of environmental documents.
- Select and use proper personal protective equipment.
- Compile field notes, maintain records, and write reports.
- Perform literature searches.
- Develop and follow SOPs.
- Inventory and assess critical natural resources.
- Identify and delineate wetlands based on plant/animal species, hydrology, and soils.
- Identify and control noxious weeds and other invasive species.
- Handle and apply pesticides and herbicides according to established protocols.
- Measure ground water levels and flow direction.

## Environmental Laboratory Services

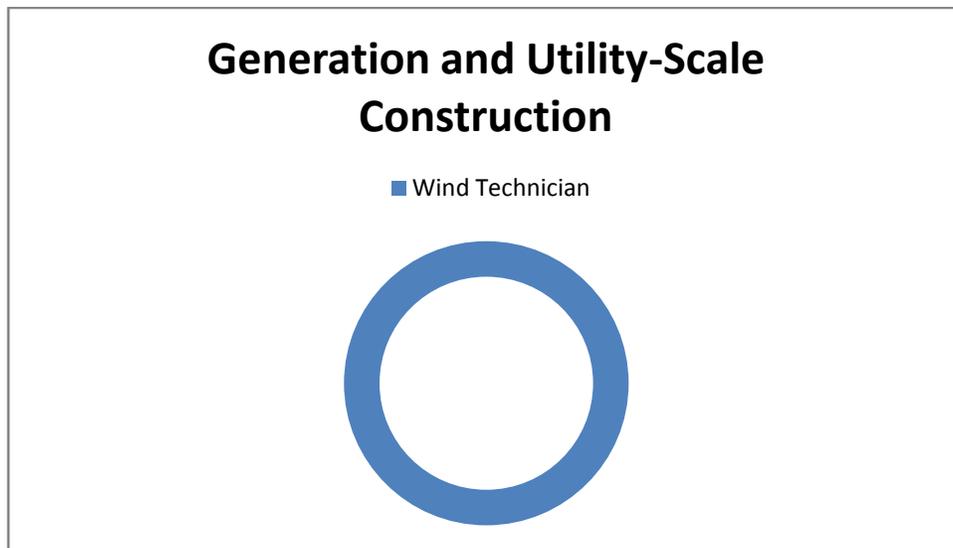
- Physical Science Technician
- Biology Technician (includes wildlife and fishery)



- Collect air, water, wastewater, soil, sludge, or other samples for laboratory analysis.
- Receive laboratory samples and ship sampling containers to customers.
- Instruct customers in proper sampling, preservation, and shipping techniques.
- Label, preserve, store, and prepare samples for analysis.
- Install, calibrate, operate, troubleshoot, repair, and maintain laboratory equipment.
- Maintain maintenance records for laboratory equipment.
- Select and use proper laboratory glassware.
- Measure, weigh, composite, and dilute samples.
- Perform wet chemistry procedures.
- Titrate, extract, and digest samples.
- Prepare laboratory standards and solutions.
- Operate basic laboratory instrumentation (e.g., pH, conductivity, colorimetric, and specific ion meters).
- Operate advanced laboratory instrumentation (e.g., spectrophotometer, gas chromatograph, and high performance liquid chromatography).
- Operate microscope.
- Prepare microbiological media.
- Qualify and quantify organisms or contaminants.
- Wash, decontaminate, or sterilize laboratory equipment.
- Label and dispose of laboratory waste.
- Maintain inventory of laboratory supplies.
- Operate computers and software.
- Generate, calculate, validate, interpret, and record laboratory data.
- Document laboratory procedures and results.
- Develop and follow SOPs.

- Follow established quality control procedures.
- Follow chain-of-custody procedures for sample collection and handling.
- Prepare laboratory reports and compliance paperwork for customers and regulatory agencies.
- Apply local, state, Tribal, and federal environmental regulations to specific projects.
- Testify in court proceedings.
- Develop and comply with chemical hygiene/safety plan.
- Perform literature searches.
- Implement laboratory business plan.
- Develop and maintain customer relationships.
- Train other employees in laboratory procedures and techniques.
- Maintain laboratory technician/analyst certifications.
- Select and use proper personal protective equipment for work environment.
- Identify and implement good laboratory practices.
- Maintain laboratory equipment calibration program.
- Maintain laboratory procedures to current approved standard methods and/or other regulatory approved methods.
- Input data to information management system.
- Collect, compile, analyze, and archive environmental data and records.
- Manage laboratory data.
- Implement and review quality assurance/quality control practices and guidelines.
- Document and report best practices.
- Maintain documentation (e.g., employee training, health and safety issues, and job performance).
- Perform basic statistical analysis.
- Develop and maintain inventory tracking systems for environmental equipment and supplies, and regulated/hazardous materials.
- Update and transmit environmental information to customers and/or regulatory agencies.
- Identify most appropriate information management technologies.
- Develop automated information management systems.
- Search Web sites, Internet directories, and literature for relevant environmental information.
- Maintain security and integrity of proprietary and/or public information resources.
- Collect, manage, and integrate spatial and attribute data using geographic information systems (GIS) and global positioning systems (GPS).
- Create and interpret maps.

- Determine appropriate projections and coordinate system.
- Perform imagery geo-referencing.
- Identify and apply basic educational principles to information management.
- Analyze and identify environmental impact.
- Analyze and identify pollution prevention, waste management, and remediation strategies.
- Manage and maintain database.
- Recognize and apply appropriate environmental regulations to information management.
- Apply ISO 140001 requirements to manage environmental systems.



- Functionally test electrical circuits working with 24 to 600 V DC/AC.
- Troubleshoot and repair integrated systems.
- Troubleshoot complicated mechanical and hydraulic problems on turbines.
- Perform all mechanical, hydraulic, and electrical component maintenance, repair, or replacement of parts to correct malfunctions.
- Perform start-up procedures and equipment function tests.
- Perform maintenance on turbine equipment per the commissioning manual.
- Collect turbine data for research and/or analysis.
- Report turbine conditions and complete reports and paperwork as required.
- Provide technical assistance to other technicians.
- Responsible for adherence to OSHA-compliant health and safety programs.
- Coordinate with engineering on technical issues and documentation.
- Prepare wind turbine generators for commercial operation.

- Travel and work overtime as required.
- Evaluate product conditions and quality to verify that systems have been assembled and wired correctly to meet product standards.
- Ensure that less experienced colleagues and subcontractors adhere to all best practices and work instructions, and provide quality workmanship combined with good housekeeping practices.
- Document all work performed using computer-based service reporting procedures.
- Possess a valid driver's license.



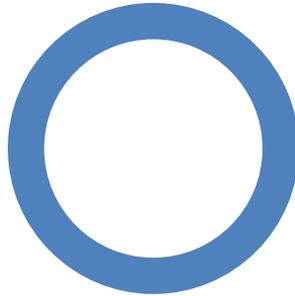
- Collect surface water, ground water, wastewater, process water, and drinking water samples.
- Label, preserve, and store samples.
- Analyze samples for physical, chemical, and biological parameters.
- Interpret sample analysis results.
- Monitor flow rates and tank levels by reading gauges, meters, and charts.
- Recognize and correct system upsets by adjusting process equipment.
- Decontaminate sampling equipment.
- Install, calibrate, operate, troubleshoot, repair, and maintain equipment.
- Operate heavy equipment, power tools, and boats.
- Operate publicly owned treatment works plant equipment.
- Operate industrial wastewater pretreatment equipment.
- Use and maintain remote sensing equipment.
- Operate water filtration, aeration, disinfection, and purification equipment.
- Label and dispose of treatment by-products and wastes.

- Select and use proper PPE.
- Practice proper confined-space entry techniques.
- Handle hazardous chemicals.
- Initiate emergency response actions.
- Maintain chemical and supply inventory.
- Operate computers and software.
- Document site or process conditions, prepare reports, and maintain accurate records.
- Develop and follow SOPs.
- Follow established quality control procedures.
- Follow chain-of-custody procedures for sample collection and handling.
- Apply local, state, Tribal, and federal environmental regulations to specific projects.
- Assess storm water runoff characteristics.
- Assist in preparation of a site storm water pollution prevention plan.
- Assist with development of written plans (e.g., sampling plan, health and safety plan, and lockout/tagout plan).
- Investigate erosion problems and assist in implementation of solutions.
- Perform ditch and culvert inspections and repairs.
- Investigate, maintain, and repair water and wastewater collection and distribution systems.
- Measure stream flow characteristics.
- Conduct lake studies.
- Assist in wetlands delineation.
- Assist in determining boundaries of a watershed.
- Assess soil, fill, and bedrock characteristics.
- Assist with environmental drilling and monitoring well installation.
- Measure ground water levels and flow direction.
- Collect, treat, and dispose of contaminated ground water.
- Monitor ground water remediation efforts.
- Apply and incorporate biosolids to land.
- Interact with contractors, site owners, regulatory agencies, and the public.
- Maintain professional certifications.
- Implement a watershed protection plan.
- Implement a watershed public education program.
- Operate, monitor, and maintain well drilling equipment and appropriate logs.
- Develop cooperative agreements with water utilities.
- Operate and maintain well fields.

- Participate and advise water boards and commissions.
- Understand basic biological and chemical principles.
- Troubleshoot operational errors and make corrective decisions.
- Understand rate paying and budgeting principles.
- Analyze data, trends, reports, consumption, and/or test results to determine adequacy of facilities and system performance to include regulatory compliance.
- Comply with state backflow preventer programs to separate drinking water supply from industrial use and re-use supplies.
- Evaluate the use and re-use of graywater in the processes.
- Implement best management practices and strive for zero discharge.
- Consider participating in community monitoring forum to determine the presence of antibiotics, caffeine, and other unregulated substances in the water supplies at and near your facility.
- Monitor the water level/drawdown rates for the various aquifers at or near your facility.
- Hold public informational sessions to advise and participate with citizens and private sectors regarding long-term, high-quality water supplies.
- Apply geospatial technologies.
- Plan and deploy security measures.
- Communicate effectively with contractors, customers, site owners, municipal officials, regulatory agencies, and the public.
- Notify regulatory agencies and public of noncompliance of licensing and permitting violations.

# Air Quality

■ Air Monitoring Technician



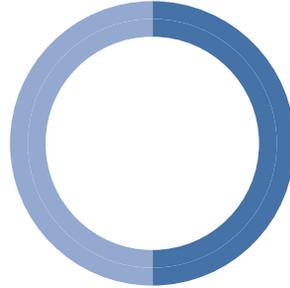
- Collect and analyze indoor and outdoor air samples.
- Install, calibrate, operate, troubleshoot, decontaminate, repair, and maintain air sampling and monitoring equipment.
- Collect and assess meteorological information.
- Label, preserve, and store samples.
- Develop and follow Standard Operating Procedures (SOPs).
- Follow established quality control procedures.
- Follow chain-of-custody procedures for sample collection and handling.
- Select and use proper personal protective equipment and safety procedures.
- Generate, calculate, validate, and interpret air sampling and monitoring data.
- Maintain accurate records of air sampling, monitoring, repair, and calibration of equipment.
- Prepare reports of air sampling and monitoring activities for customers and/or regulatory agencies.
- Assist in air permit application preparation and compliance reporting.
- Apply appropriate local, state, Tribal, and federal environmental regulations to specific projects.  
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- Evaluate and monitor health and safety conditions.
- Initiate emergency response actions.
- Calculate air emissions of facility or process.
- Conduct greenhouse gas emissions inventories, calculate carbon footprint, and implement measures to reduce emissions.
- Construct process flow diagrams.
- Input data to modeling programs.

- Conduct facility air emissions inventory.
- Investigate fugitive air emissions.
- Research air pollution prevention alternatives.
- Operate and maintain air pollution control devices.
- Determine efficiency of air pollution control devices.
- Initiate corrective action for operational malfunctions of air monitoring and/or pollution control equipment.
- Maintain inventory of supplies for air monitoring and/or pollution control equipment.
- Properly dispose of wastes generated by air monitoring and/or air pollution control equipment.
- Perform literature searches.
- Assist in recommending/implementing practices to reduce or eliminate air pollutants.
- Train employees in air sampling/monitoring techniques, and health and safety issues.
- Develop and maintain customer/community relationships.
- Maintain professional certifications.
- Interpret indoor air quality assessments, determine possible resulting health impacts, and recommend mitigation options.

## Environmental Site Management

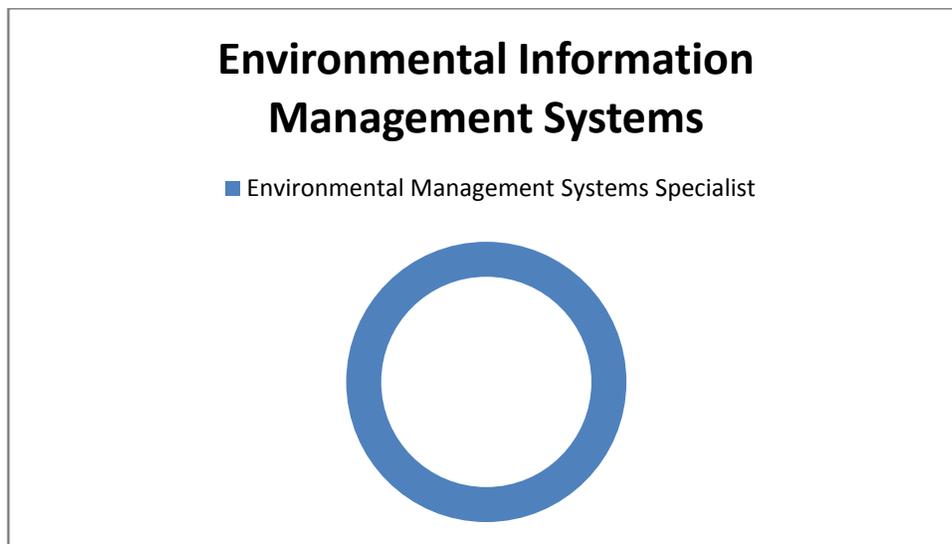
■ Geology Technician (in both energy and environment reports)

■ Environmental Protection Technician (compliance)



- Conduct abatement and remediation activities for soil, ground water, surface water, asbestos, and lead.
- Install, calibrate, operate, troubleshoot, repair, and maintain sampling and remediation equipment.
- Collect and analyze air, water, soil, sludge, asbestos-containing materials, lead paint, and other samples using field or mobile laboratory equipment.
- Label, preserve, store, and ship samples and hazardous materials.
- Assist in constructing site sampling plan; modify as necessary due to site conditions.
- Decontaminate sampling and remediation equipment.
- Handle investigative and remediation wastes properly.
- Restore site to pre-investigative conditions.
- Assess and document site hydrologic and geologic conditions, and human-made features.
- Confirm underground utility locations.
- Drill boreholes for environmental investigation.
- Evaluate and monitor health and safety conditions.
- Assist in preparation of site health and safety plan.
- Select and use proper personal protective equipment.
- Assist in site exposure monitoring.
- Initiate emergency response actions.
- Apply appropriate geospatial technologies (e.g., GIS, GPS, remote sensing).
- Survey property boundaries, features, and sampling locations using GPS or rod and transit.
- Construct and interpret blueprints/maps.
- Record site conditions, sampling protocol, and field notes.
- Photograph site conditions and activities.
- Prepare written reports of site conditions and activities.

- Recognize physical and chemical properties of hazardous materials.
- Recognize incompatible materials.
- Purge underground storage tanks of materials and vapors.
- Remove underground storage tanks using heavy equipment and power tools.
- Apply appropriate local, state, Tribal, and federal environmental regulations to projects.
- Interact with contractors, property owners, site managers, regulatory agencies, and the public.
- Research site history and investigate potential for environmental contamination.
- Support redevelopment/land use activities.
- Collect and apply environmental, economic, and social impact data related to redevelopment.
- Develop and follow SOPs.
- Follow established quality control procedures.
- Follow chain-of-custody procedures for sample collection and handling.
- Train site workers in SOPs, and health and safety issues.
- Maintain professional certifications.
- Maintain chain-of-custody records for all samples.
- Collect, manage, and integrate spatial and attribute data using geographic information systems (GIS).

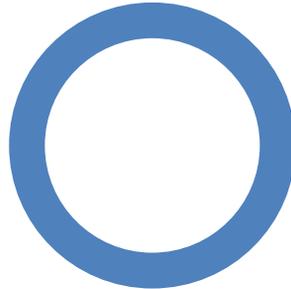


- Input data to information management system.
- Collect, compile, analyze, and archive environmental data and records.
- Manage laboratory data.
- Implement and review quality assurance/quality control practices and guidelines.
- Document and report best practices.

- Maintain documentation (e.g., employee training, health and safety issues, and job performance).
- Perform basic statistical analysis.
- Develop and maintain inventory tracking systems for environmental equipment and supplies, and regulated/hazardous materials.
- Update and transmit environmental information to customers and/or regulatory agencies.
- Identify most appropriate information management technologies.
- Develop automated information management systems.
- Search Web sites, Internet directories, and literature for relevant environmental information.
- Maintain security and integrity of proprietary and/or public information resources.
- Collect, manage, and integrate spatial and attribute data using geographic information systems (GIS) and global positioning systems (GPS).
- Create and interpret maps.
- Determine appropriate projections and coordinate system.
- Perform imagery geo-referencing.
- Identify and apply basic educational principles to information management.
- Analyze and identify environmental impact.
- Analyze and identify pollution prevention, waste management, and remediation strategies.
- Manage and maintain database.
- Recognize and apply appropriate environmental regulations to information management.
- Apply ISO 140001 requirements to manage environmental systems.

## Emergency Preparedness and Response

■ Lead Firefighter (entry level)



- Respond to hazardous materials incidents and emergencies.
- Assess, contain, control, and clean up hazardous/regulated material spills and releases.
- Evacuate affected areas.
- Assess meteorological conditions.
- Utilize the “buddy system.”
- Select and use proper personal protective equipment.
- Maintain and inspect personal protective equipment.
- Install, calibrate, operate, troubleshoot, maintain, and repair sampling and monitoring equipment.
- Interpret monitoring data.
- Operate heavy equipment and tools.
- Assist in the set-up, use, and dismantling of decontamination facility.
- Assist in containerizing materials.
- Dispose of hazardous/regulated material spill wastes.
- Complete hazardous materials incident reports.
- Activate and/or perform assigned duties within the incident command system.
- Interact with regulatory authorities, other emergency response organizations, and the public.
- Recognize chemical and physical properties of hazardous materials.
- Recognize incompatible materials.
- Label, package, and transport hazardous materials.
- Develop and manage spatial and attribute database/map.

- Collect inventory data and track regulated materials.
- Submit reports to off-site personnel and regulatory agencies.
- Apply appropriate local, state, Tribal, and federal environmental regulations to specific projects.
- Conduct facility inspections.
- Assess facility processes for potential vulnerability, and plan corrective measures.
- Develop emergency action plans.
- Train employees on emergency action plan contents and emergency response actions.
- Conduct emergency response drills.
- Serve as a member of an emergency response team.
- Maintain professional certifications.
- Maintain awareness of all hazards and threats (e.g., spills and releases, security breaches, fire, explosions, natural disasters, structural collapse, and workplace violence).
- Develop county all-hazard plans.
- Update existing training programs and materials to include applicable information on bioterrorism, terrorism, pandemic, weapons of mass destruction, personal safety/preparedness, etc.
- Develop interoperability of all agencies to prepare, plan, respond, and recover from all hazards.
- Develop and exercise crisis management, business continuity, and continuity of operations plans.
- Develop programs to address workplace violence threats including processes, procedures, and training.
- Conduct vulnerability analysis for workplace risk or hazards.
- Ensure plans are consistent with National Incident Management Framework.
- Plan for post-traumatic stress disorder assistance and counseling.
- Develop mutual aid agreements with appropriate agencies and vendors as needed to ensure multi-agency coordination.
- Develop and implement mass communication systems with appropriate agencies
- Use geospatial technologies as appropriate for emergency preparedness and response.
- Train/instruct others in the proper use of personal protective equipment.
- Safely store hazardous materials.
- Maintain documentation related to health and safety issues.

## UTTC Contact Information

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