



## STUDENT LEARNING OUTCOMES POWER GENERATION CERTIFICATE

The Power Generation Certificate is designed to provide students with the specialized knowledge and skills required to pursue a career in power generation and/or transmission.

Learning outcomes for graduates of the CTC-UAF Power Generation Certificate program:

1. Each graduate will understand the importance of maintaining a safe workplace. In addition, the graduate will understand that a power generation system must be operated in compliance with regulatory requirements and within engineering limits. Upon completion of the program, he/she will be able to create or follow safe operating procedures for basic power generation units.
2. Each graduate will demonstrate an ability to start up power generation equipment, shut down equipment, monitor equipment, and identify and correct abnormal operating conditions.
3. Each graduate will have the ability to identify Alaska's primary power generation grids and their source of fuels, and to explain the principles associated with co-generation and power production.
4. Each graduate will have the ability to describe basic electrical theory, basic electrical power generation equipment, and instrumentation utilized in the production and control of commercial electrical power generation.
5. Each graduate will demonstrate basic welding skills in the WMT 103 course.
6. Each graduate will have the ability to describe the basic chemistry, biology, hydraulics and hydrology related to water management in industries. Each graduate will have the ability to give an overview of water distribution systems, water processing, operation of water works, and wastewater processing.
7. Each graduate will have the ability to correctly identify appropriate test equipment to determine correct operation of the power generation systems, and the correct usage of basic hand tools.
8. Each graduate will meet expected outcomes in communications, computation, and human relations, per the University General requirements.