

POWER GENERATION

College of Rural and Community Development
Community and Technical College
907-479-2436
www.ctc.uaf.edu/programs/pgen/

Certificate

Minimum Requirements for Certificate: 37 credits

The power generation program will help students develop entry-level skills needed in industrial and commercial electrical power generation and maintenance. Courses combine the technical know-how and hands-on experience necessary to develop entry level workers in a variety of power generation and industrial fields. Students will become familiar with the operation and maintenance of the standard equipment encountered in the power generation industry.

Certificate Program

- 1. Complete the general university requirements (page 95).
 - 2. Complete the certificate requirements (page 97).
 - 3. Complete the following program (major) requirements: *
 - PGEN F101—Introduction to Power Generation, Distribution and Alternative Energy3
 - PGEN F102—Basic Electricity for Power Generation Operators4
 - PGEN F103—Introduction to Power Generation: Maintenance.....4
 - PGEN F104—Gas and Steam Turbines; Co-Generation and Combined Cycle Technologies4
 - PRT F110—Introduction to Occupational Safety, Health and Environmental Awareness3
 - PRT F120—Water Quality Management for Process Industries.....4
 - PRT F140—Industrial Process Instrumentation I.....3
 - WMT F103—Welding I3
 - 4. Minimum credits required37
- * Students must earn a C grade or better in each course.



Certificate Requirements

Communication 2 – 3 Credits

Complete one of the following:

- ENGL F111X—Introduction to Academic Writing.....(3)
- ABUS F170—Business English.....(3)
- ABUS F271—Business Communications(3)
- ENGL F211X—Academic Writing about Literature.....(3)
- ENGL F212—Business, Grant and Report Writing*(3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences(3)
- COMM F131X—Fundamentals of Oral Communication: Group Context(3)
- COMM F141X—Fundamentals of Oral Communication: Public Context.....(3)
or successful completion of competency test
- DEVS F104—University Communications..... (1 – 3)
- DEVS F105—Intensive Reading Development(3)
- Other program-approved discipline-based communication course or
discipline-based courses with embedded communication content..... (2 – 3)

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

Computation 2 – 3 Credits

Complete one of the following:

- Any course at the F100-level or above in mathematical sciences
(computer science, math or statistics).(3)
- ABUS F155—Business Math.....(3)
- DEVM F105—Intermediate Algebra(3)
- ECE F117—Math Skills for Early Childhood Educators.....(3)
- HLTH F116—Mathematics in Health Care(3)
- HUMS F117—Math Skills for Human Services.....(3)
- TTCH F131—Mathematics for the Trades(3)
- Other program-approved discipline-based computation course or
discipline-based courses with embedded computation content. (2 – 3)

Human Relations 2 – 3 Credits

Complete one of the following:

- ANTH F100X/SOC F100X—Individual, Society and Culture(s)(3)
- ABUS F154—Human Relations(3)
- ANL F287—Teaching Methods for Alaska Native Languages (h).....(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Child Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s).....(3)
- HUMS F120—Cultural Diversity in Human Services.....(3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND
RHS F115—Issues of Personal Development(2)
- Other program-approved discipline-based human relations or
discipline-based courses with embedded human relations content. (2 – 3)

Major specialty at least 21 Credits

Electives to total 30 Credits

Associate of Applied Science Requirements

Written Communication 6 Credits

- ENGL F111X—Introduction to Academic Writing.....(3)

Complete one of the following:

- ABUS F271—Business Communications(3)
- ENGL F211X—Academic Writing about Literature.....(3)
- ENGL F212—Business, Grant and Report Writing*(3)
- ENGL F213X—Academic Writing about the Social and Natural Sciences(3)

* ENGL F212 does not fulfill the second half of the written communication requirement for the bachelor's degree.

Oral Communication 3 Credits

Complete one of the following:

- COMM F131X—Fundamentals of Oral Communication: Group Context(3)
- COMM F141X—Fundamentals of Oral Communication: Public Context.....(3)
or successful completion of competency test

Computation 3 Credits

Complete one of the following:

- Any course at the F100-level or above in mathematical sciences
(computer science, math or statistics).(3)
- ABUS F155—Business Math.....(3)
- DEVM F105—Intermediate Algebra(3)
- ECE F117—Math Skills for Early Childhood Educators.....(3)
- HLTH F116—Mathematics in Health Care(3)
- HUMS F117—Math Skills for Human Services.....(3)
- TTCH F131—Mathematics for the Trades(3)
- Other program-approved discipline-based computation course or
discipline-based courses with embedded computation content. (3)

Human Relations 3 Credits

Complete one of the following:

- ANTH F100X/SOC F100X—Individual, Society and Culture (s)(3)
- ABUS F154—Human Relations(3)
- ANL F287—Teaching Methods for Alaska Native Languages (h).....(3)
- ECE F104—Child Development: Prenatal, Infants and Toddlers (s)(3)
- ECE F107—Child Development II: Preschool and Primary Years (s)(3)
- ED/PSY F245—Childhood Development (s)(3)
- HLTH F106—Human Behavior in Health Care (s)(3)
- HUMS F120—Cultural Diversity in Human Services.....(3)
- RHS F110—Cross-Cultural Bridging Skills (1) AND
RHS F115—Issues of Personal Development(2)
- Other program-approved discipline-based human relations course or
discipline-based courses with embedded human relations content. (3)

Major specialty at least 30 Credits

Electives to total 60 Credits

Minimum credits required for degree 60 Credits