

CONSTRUCTION TRADES TECHNOLOGY

College of Rural and Community Development
Bristol Bay Campus 907-842-5109
Chukchi Campus 907-442-3400
Interior-Aleutians Campus 907-474-5439
Kuskokwim Campus 907-543-4500
Northwest Campus 907-443-2201
Community and Technical College 907-455-2800
www.uaf.edu/iac/

Certificate; AAS Degree

Minimum Requirements for Certificate: 30 credits;
for Degree: 70–73 credits

The construction trades technology program is designed to prepare students to work in the construction industry. The program prepares students for employment in areas where there is a projected shortage of skilled workers.

This program gives students fundamental knowledge of construction industry expectations in carpentry, facility maintenance and sustainable energy, as well as hands-on training. It responds to the skills targeted by Alaskan employers. Students completing the certificate program will have completed the first year of the AAS degree program. Graduates of the AAS degree program may pursue opportunities with employers as they acquire a higher level of residential construction trade and/or residential construction management skills.

A strong desire to work in the construction industry is important. Students must be willing to work collaboratively with industry employees in their local communities to fulfill the practicum components of courses.

Certificate Program

1. Complete the general university requirements (page 94).
2. Complete the certificate requirements. (See page 96. As part of the certificate requirement, complete 3 credits each in the communication and human relations requirements.)
3. Complete one of the following computation courses:
CTT F106—Construction Mathematics (3)3
or TTCH F131—Mathematics for the Trades (3)3
4. Complete the following program requirements:
CTT F100—Construction Technology Core (3)
or CTT F101—Basic Construction Safety (1)
and CTT F102—Introduction to Hand and Power Tools (1)
and CTT F103—Introduction to Blueprint Reading (1)3
HLTH F122—First Aid and CPR1

5. Complete one of the following concentrations:*

Carpentry

- a. CTT F110—Residential Carpentry—Level One (8.5)
or CTT F111—Materials and Tools Used in the Trade (2.5)
and CTT F112—Floor Systems, Wall and Ceiling Framing (2)
and CTT F113—Roof Framing, Windows and Exterior Doors (2)
and CTT F114—Introduction to Concrete Materials and
Forms (2) 8.5
- b. CTT F115—Residential Carpentry — Level Two (12)
or CTT F116—Reading Plans and Site Layout — Level One (2)
and CTT F117—Exterior Finish and Moisture Protection (2)
and CTT F118—Roofing, Stairs and Metal Studs Applications (3)
and CTT F119—Drywall and Interior Finish
Applications (5)12
- c. CTT F199—Student Practicum I1–3

Facility Maintenance

CTT F130—Introduction to Facilities Maintenance1
CTT F131—Interior Repairs: Drywall, Woodwork Trim,
Window Replacement1

CTT F132—Flooring Installations: Vinyl, Wood and Parquet1
CTT F133—Cabinet Installation with Countertops1
CTT F135—Boiler Troubleshooting and Burner Repair2
CTT F137—Appliance Troubleshooting and Repair2
CTT F138—Residential Heating Controls2
CTT F151—Introduction to Plumbing Tools and Drawings1
CTT F153—Plastic and Copper Pipe and Fittings1
Other advisor approved electives related to the concentration3
CTT F199—Student Practicum I1–3
Students must take a minimum of 2 credits in CTT F199.

Sustainable Energy

- a. DEVM F105—Intermediate Algebra3
- b. ENVI F220—Introduction to Sustainable Energy3
- c. Complete at least 9 credits from the following courses:
CT S201—Cold Climate Construction (3)**
CTT F100—Construction Technology Core (3)
CTT F160—Photovoltaic Systems—Part I (5)
CTT F161—Photovoltaic Systems—Part II (5)
CTT F250—Current Topics in Construction Trades (1–3)
ENVI F101—Introduction to Environmental Science (3)
ENVI F120—Home Energy Basics (1)
PHYS F102X—Energy and Society (4)
or other advisor approved courses related to the concentration9
- d. CTT F199—Student Practicum I 1-3
Students must take a minimum of 3 credits in CTT F199.
6. Minimum credits required30
* *Students must earn a C- grade or better in each course.*
** *CT S201 is offered by University of Alaska Southeast.*

Major — AAS Degree

1. Complete the general university requirements (page 94).
2. Complete the AAS degree requirements. (See page 98. As part of the degree requirements, complete CTT F106 or TTCH F131 for the computation requirement.)
3. Complete the construction trades technology program (major) requirements.
4. Complete one the following concentrations:*

Residential Construction

CTT F150—Plumbing — Level One4
CTT F155—Plumbing — Level Two8
CTT F170—Residential Electrical — Level One9
CTT F175—Residential Electrical — Level Two8
CTT F299—Student Practicum II1.5

Residential Construction Project Management

CIOF F150—Computer Business Applications3
CM F205—Construction Safety3
CTT F104—Basic Communication and Employment Skills2
CTT F240—Introduction to Project Development for Rural
Residential Construction3
CTT F241—Introduction to Estimating, Cost Control,
Quality Controls and Residential Construction3
CTT F299—Student Practicum II1.5
TM F105—Introduction to Tribal Finance Applications3

5. Complete 3 credits of tribal management-approved electives from the following courses:
TM F101—Introduction to Tribal Management (3)
or TM F201—Advanced Tribal Management (3)
or TM F205—Advanced Tribal Finance (3)
or other CTT advisor-approved TM course (3)3
6. Complete 6 additional credits of CTT elective courses not taken to fulfill the AAS requirement.6
7. Minimum credits required 70–73
* *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)
- 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