DRAFTING TECHNOLOGY

College of Rural and Community Development
Community and Technical College
907-455-2845
www.ctc.uaf.edu/programs/drafting/

Certificate; AAS Degree

Minimum Requirements for Certificate: 33 – 34 credits;
for Degree: 60 – 63 credits

The drafting technology programs combine focused training in computer-aided drafting with a well-rounded exposure to the professions, trades and materials common to construction in Alaska. Courses combine technical CAD training with the vocabulary and knowledge needed to communicate with future employers in the architectural, engineering and construction fields. Students develop skills in mathematics, drawing and multi-functional CAD techniques. Students are instructed in traditional drawing techniques, CAD, and building information modeling technologies, giving them the knowledge and flexibility to work traditionally and with the most recent drafting technologies. Required courses cover many aspects of design and construction, including building materials, codes, and civil, mechanical, electrical and structural technologies. Qualified students have the opportunity to work side-by-side with professionals from the architectural and engineering community in internships, gaining valuable on-the-job experience.

Students entering the certificate program are expected to have computer skills equivalent to CIOS F150.

Certificate Program

1. Complete the general university requirements (page 95).

2. Complete the certificate requirements (page 97).

3. Complete the following certificate requirements:
   DRT F101—Introduction to Drafting......................................3
   DRT F121—Construction Documents and Drawings 3
   DRT F170—Beginning CAD 3
   DRT F210—Intermediate CAD...3
   DRT F270—Advanced CAD 3

4. Complete one of the following concentrations:
   a. **Architectural Drafting**
   CM F102—Methods of Building Construction 3
   CM F123—Codes and Standards 3
   DRT F140—Architectural Drafting...3
   b. **Civil Drafting**
   CM F102—Methods of Building Construction 3
   CM F213—Civil Technology 4
   DRT F150—Civil Drafting..3

   c. **Information Technology**
   CITS F203—Information Technology Support Fundamentals................................4
   CITS F204—Introduction to Network Support and Administration 3
   CITS F261—Computer and Network Security 3
   d. **Mechanical and Electrical Drafting**
   CM F102—Methods of Building Construction 3
   CM F142—Mechanical and Electrical Technology.........................4
   DRT F155—Mechanical and Electrical Drafting...............................3
   e. **Process Technology**
   PRT F101—Introduction to Process Technology................................3
   PRT F110—Introduction to Occupational Safety, Health and Environmental Awareness 3
   PRT F117—Drafting for Technicians...3
   f. **Structural Drafting**
   CM F102—Methods of Building Construction 3
   CM F231—Structural Technology 4
   DRT F145—Structural Drafting...3

5. Minimum credits required .... 33 – 34
Note: DRT F260 Drafting Internship may be substituted for concentration-specific DRT courses with program approval.

Major – AAS Degree

1. Complete the general university requirements (page 95).

2. Complete the AAS degree requirements (page 99).

3. Complete the following program (major) requirements:*
   DRT F101—Introduction to Drafting......................................3
   DRT F140—Architectural Drafting...3
   DRT F150—Civil Drafting..3
   DRT F170—Beginning CAD 3
   DRT F210—Intermediate CAD...3
   DRT F270—Advanced CAD 3
   DRT F145—Structural Drafting...3
   DRT F155—Mechanical and Electrical Drafting...............................3
   CM F102—Means and Methods of Building Construction 3
   CM F123—Codes and Standards 3
   CM F142—Mechanical and Electrical Technology.........................4
   CM F213—Civil Technology 4
   CM F231—Structural Technology 4

4. Complete 3 – 6 credits from the following electives:
   DRT F121—Construction Documents and Drawings 3
   DRT F260—Drafting Internship................................... 3 – 6
   CM F201—Construction Project Management 3
   ES F101—Introduction to Engineering**...3

5. Minimum credits required .... 60 – 63
*   Students must earn a C- grade or better in each course
** This elective requires additional math prerequisites.

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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

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