

# INSTRUMENTATION TECHNOLOGY

College of Rural and Community Development  
Community and Technical College  
907-479-2436  
[www.ctc.uaf.edu/programs/inst/](http://www.ctc.uaf.edu/programs/inst/)

**Certificate**

Minimum Requirements for Certificate: 32 credits

The instrumentation technology program will develop entry-level skills in industrial instrumentation. Courses combine the technical know-how, the use of state-of-the-art equipment and hands-on experience necessary for work in a variety of industrial instrumentation fields.

Students are taught the necessary objectives and skills sets required to take the entry-level Instrumentation, Systems and Automation Society certificate examination. This is a nationally recognized certification by industry partners; individuals holding this certification are sought after by industry partners to fill instrumentation technician positions worldwide.

As the process industries expand and automate, the need for qualified technicians increases. This need is currently being addressed by the Industrial Instrumentation & Controls Technology Alliance. CTC and the process technology program are active members of this national alliance.

**Certificate Program**

- 1. Complete the general university requirements (page 95).
- 2. Complete the certificate requirements (page 97).
- 3. Complete the following program requirements:
  - ELT F101—Basic Electronics: DC Physics..... 4
  - ELT F102—Basic Electronics: AC Physics..... 4
  - ELT F246—Electronic Industrial Instrumentation ..... 3
  - PRT F140—Industrial Process Instrumentation I ..... 3
  - PRT F144—Industrial Process Instrumentation II ..... 3
  - PRT F240—Industrial Process Instrumentation III..... 3
  - PRT F248—Valve Maintenance and Instrumentation ..... 3
- 4. Minimum credits required ..... 32



**All degrees (e.g. Certificate, A.A., A.A.S., A.S., etc) require additional courses. Refer to specific degree and program requirements.**

## Certificate Requirements

### COMMUNICATION (2-3)

**Complete one of the following:**

|                 |         |       |
|-----------------|---------|-------|
| ENGL F111X..... | (3)     | _____ |
| ABUS F170 ..... | (3)     | _____ |
| ABUS F271 ..... | (3)     | _____ |
| ENGL F211X..... | (3)     | _____ |
| ENGL F212 ..... | (3)     | _____ |
| ENGL F213X..... | (3)     | _____ |
| COMM F131X..... | (3)     | _____ |
| COMM F141X..... | (3)     | _____ |
| DEVS F104 ..... | (1 – 3) | _____ |
| DEVS F105 ..... | (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)

**Complete one of the following:**

|  |     |       |
|--|-----|-------|
| Any course at the F100-level or above in mathematical sciences (computer science, math or statistics)..... | (3) | _____ |
| ABUS F155 .....  | (3) | _____ |
| DEVM F105.....   | (3) | _____ |
| ECE F117 .....   | (3) | _____ |
| HLTH F116 .....  | (3) | _____ |
| HUMS F117.....   | (3) | _____ |
| PRT F155.....  | (3) | _____ |
| TTCH F131 .....  | (3) | _____ |

*Other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (2 – 3)*

### HUMAN RELATIONS (2-3)

**Complete one of the following:**

|                            |     |       |
|----------------------------|-----|-------|
| ANTH F100X/SOC F100X ..... | (3) | _____ |
| ABUS F154 .....            | (3) | _____ |
| ANL F287 .....             | (3) | _____ |
| ECE F245 .....             | (3) | _____ |
| ED/PSY F245 .....          | (3) | _____ |
| HLTH F106 .....            | (3) | _____ |
| HUMS F120.....             | (3) | _____ |
| RHS F110 .....             | (1) | _____ |
| AND RHS F115 .....         | (2) | _____ |

*Other program-approved discipline-based human relations course or discipline-based courses with embedded human relations content. (2 – 3)*

**MAJOR SPECIALTY CREDITS (minimum)..... 21**

**Minimum credits for required certificate..... 30**

## Associate of Applied Science Requirements

### COMMUNICATION (9)

|                 |     |       |
|-----------------|-----|-------|
| ENGL F111X..... | (3) | _____ |
|-----------------|-----|-------|

**Complete one of the following:**

|                 |     |       |
|-----------------|-----|-------|
| ABUS F271 ..... | (3) | _____ |
| ENGL F211X..... | (3) | _____ |
| ENGL F212 ..... | (3) | _____ |
| ENGL F213X..... | (3) | _____ |

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

**Complete one of the following:**

|                 |     |       |
|-----------------|-----|-------|
| COMM F131X..... | (3) | _____ |
| COMM F141X..... | (3) | _____ |

### COMPUTATION (3)

**Complete one of the following:**

|  |     |       |
|--|-----|-------|
| Any course at the F100-level or above in mathematical sciences (computer science, math or statistics)..... | (3) | _____ |
| ABUS F155 .....  | (3) | _____ |
| DEVM F105.....   | (3) | _____ |
| ECE F117 .....   | (3) | _____ |
| HLTH F116 .....  | (3) | _____ |
| HUMS F117.....   | (3) | _____ |
| PRT F155.....  | (3) | _____ |
| TTCH F131 .....  | (3) | _____ |

*Other program-approved discipline-based computation course or discipline-based courses with embedded computation content. (3)*

### HUMAN RELATIONS (2-3)

**Complete one of the following:**

|                            |     |       |
|----------------------------|-----|-------|
| ANTH F100X/SOC F100X ..... | (3) | _____ |
| ABUS F154 .....            | (3) | _____ |
| ANL F287 .....             | (3) | _____ |
| ECE F245 .....             | (3) | _____ |
| ED/PSY F245 .....          | (3) | _____ |
| HLTH F106 .....            | (3) | _____ |
| HUMS F120.....             | (3) | _____ |
| RHS F110 .....             | (1) | _____ |
| AND RHS F115 .....         | (2) | _____ |

*Other program-approved discipline-based human relations course or discipline-based courses with embedded human relations content. (3)*

**MAJOR SPECIALTY CREDITS (minimum)..... 30**

**Minimum credits required for degree ..... 60**



**UNIVERSITY OF ALASKA FAIRBANKS**

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