Associate of Applied Science in Industrial Process Instrumentation

This program is delivered only through Kenai Peninsula College.

The Associate of Applied Science (AAS) in Industrial Process Instrumentation prepares students for entry-level employment in a variety of process industries such as petroleum, mining, power generation, chemical manufacturing, renewable energy, and food processing.

Program coursework includes pneumatic instrumentation, electronic instrumentation, computer digital interfacing, distributed control systems (DCS) and supervisory control and data acquisition (SCADA) applications. Students gain hands-on experience with instrument loop tuning, instrument installation, troubleshooting and repair.

The AAS in Industrial Process Instrumentation constitutes the first two years of the Bachelor of Science (BS) in Applied Technologies Leadership.

Admission Requirements

Complete the Admission Requirements for Associate (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/)Degrees.

Graduation Requirements

- Complete the General University Requirements for Associate of Applied Science Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/).
- Complete the General Education Requirements for Associate of Applied Science Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/aasrequirements/generaleducationrequirements/).
- Complete the following major requirements with a minimum grade of C:

Code	Title	Credits
Core courses		
ET A101	Basic Electronics: DC Circuits	4
ET A102	Basic Electronics: AC Circuits	4
ET A126	Digital Electronics	4
ET A175	Technical Introduction to Computing Systems	3
ET A240	Computer Systems Interfacing	3
ET A241	Digital Control Systems	3
ET A243	Programmable Logic Controllers	3
ET A246	Electronic Industrial Instrumentation	3
PETR A240	Industrial Process Instrumentation III	3
PETR A244	Industrial Process Instrumentation IV	3
PHYS A115 & A115L	Physical Science and Physical Science Lab	4
or PHYS A123 & A123L	College Physics I and College Physics I Laboratory	
PRT A130	Process Technology I: Equipment	4
PRT A140	Industrial Process Instrumentation I	3
PRT A144	Industrial Process Instrumentation II	3
Electives		
Complete 1-3 credits of advisor-approved electives.		1-3
Total		**48-50**

A minimum of 60 credits is required for the degree.

Program Student Learning Outcomes

Graduates of the UAA industrial process Instrumentation program will have the ability to:

- Read P & ID drawings and interpret instrument symbols.
- Describe the output from a pneumatic or electronic transmitter for a given process input condition.
- Describe the effect of changes in gain or integral time on the dynamic behavior of closed-loop control.
- Describe the techniques for troubleshooting an orifice meter and flow control loop using either electronic or pneumatic equipment.
- Identify the voltage drops in a series connected current loop or a parallel connected voltage loop.
- Distinguish between data transmitted by analog signals and data transmitted by digital signals.