Industrial Process Instrumentation (AAS)

UNIQUE OPPORTUNITIES

The AAS in Industrial Process Instrumentation is a specialized technical degree that prepares students for employment as instrument technicians. Instrument technicians are responsible for the repair, maintenance, adjustment, and calibration of automatic controls used in refineries, chemical plants, pipelines, oil and gas production facilities, food processing facilities, and other industries where automatic control is used. Strong math and science skills are emphasized in the program.

Educational Pathway Options

Recommended Preparation

High School

- Algebra
- Basic computer skills
- Physics
- Chemistry

Associate of Applied Science (AAS)

2-3 Years

Industrial Process Instrumentation

Career Opportunities

- Industrial Process Instrumentation Technician
- Automation Technician
- Process Control Systems Technician

KENAI PENINSULA COLLEGE UAA

CAREER CONNECTIONS

- Natural Resources & Environmental Sciences
- Architecture & Construction
- Transportation, Distribution, & Logistics

APPLICATION PROCESS

1. Review admission requirements at www.kpc.alaska.edu/admissions.
2. Apply for admission online at https://uaonline.alaska.edu.
3. Call 907.262.0332 or 877.262.0330 for financial aid information.
4. Take the ACCUPLACER test for English and math course placement. Call the Learning Center at 907.262.0327 or 877.262.0330 for information.
5. Make an appointment for academic advising at 907.262.0330 or 877.262.0330 and meet regularly with an advisor.

Kenai Peninsula College is a community campus of the University of Alaska Anchorage and has been continuously accredited by the Northwest Commission on Colleges and Universities since 1974. This brochure is for information purposes only and does not constitute a contract. UAA is an EO/AA employer and educational institution.

This information is based on the 2011-2012 UAA Course Catalog. Please refer to the current catalog for complete information. Students are strongly encouraged to consult an advisor prior to course selection. When registering for courses, be sure to select the proper campus.

PROGRAM HIGHLIGHTS

- Many of the program's graduates have been hired by the state's top oil, gas, and support industry companies.
- In addition to oil and gas, the program prepares students to enter the burgeoning green technology industry, including the hydro-electricity, bio-diesel, and solar energy fields.
- Graduates are qualified for jobs in Alaska and outside the state.
- Students can complete this program in two years if they work closely with their advisors. A fifth semester of coursework may be necessary.

STUDENT LEARNING OUTCOMES

Program graduates will be able to:

- Read P & ID drawings and piping isometric drawings.
- Predict the output and effect of changes for input conditions.
- Troubleshoot an orifice meter and flow control loop.
- Interpret RTD or thermocouple output values as process temperatures.
- Implement a set-reset function using Boolean logic, TTL circuits, or relay logic.
- Distinguish between data transmitted by analog or digital signals.
- Identify pumps, compressors, transmitters, and other components.
- Demonstrate knowledge of many other technical and communication skills suitable to the workplace.

INDUSTRIAL PROCESS INSTRUMENTATION (AAS)

GENERAL UNIVERSITY REQUIREMENTS

Complete the General University Requirements for Associate degree programs.

GENERAL COURSE REQUIREMENTS (20 credits)

		Semester	Grade
ENGL 111	Methods of Written Communication (3)		
ENGL 212	Technical Writing (3)		
MATH 105	Intermediate Algebra (3) ***(or higher)***		
PHYS 115/L	Physical Science (4) ***or***		
PHYS 123/L	Basic Physics I (4)		
CHEM 103/L	Survey of Chemistry (4) ***or***		
CHEM 105/L	General Chemistry I (4)		
Choose one of the following:			
COMM 111	Fundamentals of Oral Communication (3)		
COMM 235	Small Group Communication (3)		
COMM 241	Public Speaking (3)		

MAJOR REQUIREMENTS (46-48 credits)

Core Courses

		Semester	Grade
ET 101	Basic Electronics: DC Circuits (4)		
ET 102	Basic Electronics: AC Circuits (4)		
ET 126	Digital Electronics (4)		
ET 175	Technical Introduction to Computing Systems (3)		
ET 240	Computer Systems Interfacing (3)		
ET 241	Digital Control Systems (3)		
ET 246	Electronic Industrial Instrumentation (3)		
PETR 155	Blueprint Reading (3) ***or***		
EDD 288	Computer Aided Drafting (4)		
PETR 240	Industrial Process Instrumentation III (3)		
PETR 244	Industrial Process Instrumentation IV (3)		
PRT 130	Process Technology I: Equipment (4)		
PRT 140	Industrial Process Instrumentation I (3)		
PRT 144	Industrial Process Instrumentation II (3)		

Technical Elective

		Semester	Grade
Complete one of the following:			
CNT 170	CCNA 1 Network Fundamentals (4)		
CS 109	Computer Programming (languages vary) (3)		
ET 243	Programmable Logic Controllers (3)		
PRT 230	Process Technology II: Systems (4)		
PRT 250	Process Troubleshooting (3)		

A total of 66-68 credits is required for this degree.

2-2012

KENAI PENINSULA COLLEGE/UAA
ADMISSIONS: 907.262.0311 or 877.262.0330
WEBSITE: www.kpc.alaska.edu
ADDRESS: 156 College Road, Soldotna, AK 99669

KACHEMAK BAY CAMPUS, KPC/UAA: 907.235.7743
ADDRESS: 533 East Pioneer Avenue, Homer, AK 99603