

# Northwest Louisiana Technical College

## Industrial Instrumentation Technology

### Program Description & Curriculum

This program trains students to become competent, qualified instrument technicians who can meet the ever-changing demands of modern industry. This program is offered to provide training leading to employment for area residents as a result of business/industrial demand.

### Degrees/Certificates

Associate of Applied Science (AAS), Technical Diploma (TD)

Certificate of Technical Studies (CTS)

Technical Competency Area (TCA)

Available degrees and certificates may vary at each campus. Check with your local campus for more information.

**CIP 150404**

Industrial Instrumentation Technology CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
INST 1110	Introduction to Industrial Instrumentation	1/2	3	75
ETRN 1131	Basic Electricity	1/3	4	120
<b>TCA – Electrical Helper I</b>			<b>7</b>	<b>195</b>
<i>INST 1110, ETRN 1131 PLUS the following courses</i>				
ETRN 1221	Basic Electronics	1/3	4	120
ELEC 1440	Motor Controls	0/3	3	135
<b>TCA – Electronic Repair I</b>			<b>14</b>	<b>450</b>
<i>INST 1110, ETRN 1131, ETRN 1221, INST 2620 PLUS the following courses</i>				
ELEC 1450	Variable Frequency Drives	0/2	2	90
INST 2750	Programmable Logic Controllers	1/3	4	120
INST 1431	Temperature and Flow	0/3	3	90
ELEC 1330	Generators, Motors, and Transformer Operation	0/2	2	90
<b>CTS – E/I Helper</b>			<b>25</b>	<b>840</b>
<i>INST 1110, ETRN 1131, ETRN 1221, INST 2620, INST 2650, INST 2750, INST 1431, ELECT 1330 PLUS</i>				
INST 1340	Pressure and Level Measurement	1/2	3	90
INST 2731	Analytical Measurement	0/2	2	60
INST 1430	Final Elements	1/2	3	75
INST 2610	Controllers	0/3	3	90
INST 2820	Principles of Process Control	1/2	3	75
INST 2831	Analog Control Systems	1/2	3	75
INST 2841	Digital Control Systems	1/2	3	75
<b>TD – Industrial Instrumentation Technician</b>			<b>45</b>	<b>1380</b>
<i>Transferable General Education Courses Required for AAS</i>				
ENGL 1015	English Composition	3/0	3	45
MATH 1015	College Algebra	3/0	3	45
PSYC 2015	Introduction to Psychology	3/0	3	45
PHSC 1015	Physical Science I	3/0	3	45

SPCH 1015	Introduction to Public Speaking	3/0	3	45
<b>AAS – Industrial Instrumentation Technology</b>			<b>60</b>	<b>1605</b>
<b>Optional Electives</b>				
CSRV 1000	Customer Service	3/0	3	45
CSRV 2000	Customer Service & Sales	3/0	3	45
ENTP 1000	Foundations of Entrepreneurship	3/0	3	45
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
INST 2991	Special Projects I	0/1	1	30
INST 2993	Special Projects II	0/2	2	60
INST 2995	Special Projects III	0/3	3	90
INST 2996	Special Projects IV	3/0	3	45
INST 2997	Practicum	0/3	3	45
INST 2999	Cooperative Education	0/3	3	135