

# Northwest Louisiana Technical College

## Industrial Instrumentation Technology

Program Description & Curriculum

March 2017

Effective August 2017

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

<b>Course # -- Course Title</b>	<b>Lecture/Lab Hours</b>	<b>Credit Hours</b>	<b>Clock Hours</b>
INST 1110 Introduction to Industrial Instrumentation	1/2	3	150
ETRN 1131 Basic Electricity	1/3	4	120
<b>TCA – Electrical Helper I</b>		<b>7</b>	<b>270</b>
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>525</b>
ELEC 1450 Variable Frequency Drives	0/2	2	120
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	120
<b>CTS – E/I Helper</b>		<b>25</b>	<b>1245</b>
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>1515</b>
<b>Transferable General Education Courses Required for AAS</b>			
ENGL 1015 English Composition	3/0	3	45

<b>Course # -- Course Title</b>	<b>Lecture/Lab Hours</b>	<b>-- Credit Hours</b>	<b>-- Clock Hours</b>
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>1740</b>

**Optional Electives**

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

**With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.**

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