

Northwest Louisiana Technical College

Electrician-Industrial Electrician

Program Description & Curriculum

The purpose of this program is to prepare individuals to install, maintain, troubleshoot, and repair electrical devices, components, and equipment. Graduates may find employment in industrial, residential, and commercial electrical professions.

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 460302

Electrician-Industrial Electrician CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
ELEC 1000	Introduction to Industrial Electrician	1/0	1	15
ELEC 1111	Basic Electricity	1/3	4	105
ELEC 1131	Basic Electronics	1/3	4	105
TCA – Electrician Helper I			9	225
<i>ELEC 1000, ELEC 1111, ELEC 1131 PLUS</i>				
ELEC 1211	Residential Wiring & Installation	2/4	6	150
ELEC 2460	Technical Mathematics for Electricians	1/1	2	45
TCA – Electrician Helper II			17	420
<i>ELEC 1000, ELEC 1111, ELEC 1131, ELEC 1211, ELEC 2460 PLUS</i>				
ELEC 1312	Industrial Wiring Installation	1/5	6	165
ELEC 1220	Electrical Raceways	0/3	3	90
ELEC 1230	National Electrical Code	0/2	2	90
ELEC 1430	Blueprint Interpretation	1/2	3	90
CTS – Industrial Electrician Apprentice			31	855
<i>TCA – Electrician Helper I, TCA – Electrician Helper II, and CTS – Industrial Electrician Apprentice PLUS</i>				
ELEC 1330	Generators/Motors and Transformer Operation	0/2	2	90
ELEC 1450	Variable Frequency Drives	0/2	2	90
ELEC 1440	Motor Controls	0/3	3	135
ELEC 2630	Introduction to Process Controllers, Level, Temperature, Pressure and Flow	0/3	3	105
ELEC 2620	Programmable Logic Controllers	0/4	4	120
TD – Industrial Electrician			45	1395
<i>Optional Electives</i>				
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
SOLR 1000	Solar Fundamentals	3/0	3	45
SOLR 1010	PV Solar Applications	1/2	3	75

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SOLR 1020	Industrial Solar Applications	1/2	3	75
SOLR 1030	Solar Thermal Applications	1/2	3	75
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
ELEC 2991	Special Projects I	0/1	1	30
ELEC 2993	Special Projects II	0/2	2	60
ELEC 2995	Special Projects III	0/3	3	90
ELEC 2996	Special Projects IV	3/0	3	45
ELEC 2998	Special Projects V	1/0	1	15
ELEC 2997	Practicum	0/3	3	135
ELEC 2999	Cooperative Education	0/3	3	135
Additional Exit Points				
SOLR 1000	Solar Fundamentals	3/0	3	45
SOLR 1010	PV Solar Applications	1/2	3	75
SOLR 1020	Industrial Solar Applications	1/2	3	75
SOLR 1030	Solar Thermal Applications	1/2	3	75
TCA – ELEC: Solar Systems Installer			12	270
ELEC 1111	Basic Electricity	1/3	4	105
ELEC 1211	Residential Wiring & Installation	2/4	6	150
ELEC 2460	Technical Mathematics for Electrician	1/1	2	45
ELEC 1230	National Electrical Code	0/2	2	90
ELEC 1311	Residential Wiring Installation	1/5	6	165
ELEC 1440	Motor Controls	0/3	3	135
<i>Above six courses plus SOLR 1000, SOLR 1010, and SOLR 1020</i>			CTS – ELEC: Energy Systems Technician	35
				960