

LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

Changing Lives,
Creating Futures

Monty Sullivan
System President

Officers:
Timothy W. Hardy
Chair

Deni Grissette
First Vice Chair

Stephen Toups
Second Vice Chair

Members:
Helen Bridges Carter
Erika McConduit-Diggs
Willie L. Mount
Michael J. Murphy
N. J. "Woody" Oge
Joe Potts
Paul Price, Jr.
Stephen C. Smith
Mark D. Spears, Jr.
Craig Spohn
Vincent St. Blanc, III
Charles T. Strong

Student Members:
Sommer Brown
Jennifer Burgess

Louisiana
Community
& Technical
College System

265 South Foster Drive
Baton Rouge, LA 70806

Phone: 225-922-2800
Fax: 225-922-1185

www.lctcs.edu

TO: Dr. Monty Sullivan
LCTCS President
THROUGH: Dr. Paul Carlsen
Chief Content Officer
FROM: Dr. René Cintrón
Executive Director of Education and Research
SUBJECT: Program Revisions at Northwest Louisiana Technical College
DATE: 03/23/2017

FOR BOARD ACTION:

Recommendation: Staff recommends that the Board approve the program revisions and terminations listed below.

Program Revisions

- 1. Associate of Applied Science (AAS) in Industrial Instrumentation Technology (CIP 15.0404) - 4 STARS
a. Technical Diploma (TD) in Industrial Manufacturing Technology (CIP 15.0613) - 5 STARS
2. Technical Diploma (TD) in Industrial Maintenance (CIP 47.0303) - 5 STARS
a. Certificate of Technical Studies (CTS) in Advanced Manufacturing Technology (CIP 47.0303) - 5 STARS (CIP 15.0613)
3. Technical Diploma (TD) in Automotive (CIP 47.0604) - 4 STARS
4. Technical Diploma (TD) in Electrician-Commercial Wiring II (CIP 46.0302) - 5 STARS
5. Technical Diploma (TD) in Industrial Electrician (CIP 46.0302) - 5 STARS
6. Technical Diploma (TD) in Welding (CIP 48.0508) - 5 STARS
7. Technical Diploma (TD) in Air Conditioning and Refrigeration (CIP 47.0201) - 5 STARS
8. Technical Diploma (TD) in Diesel Power Equipment Technology (CIP 47.0605) - 4 STARS
9. Technical Diploma (TD) in Information Technology (CIP 11.0901) - 5 STARS
10. Certificate of Technical Studies (CTS) in Heavy Construction Vehicle Operator (CIP 49.0202) - 5 STARS
11. Certificate of Technical Studies (CTS) in Patient Care Technician (CIP 51.2601) - 3 STARS

APPROVED
LCTCS BOARD OF SUPERVISORS
4/12/17

**Background:** NWLTC has revised the above curriculum to directly align with 4 and 5 Star Jobs as established by the Louisiana Workforce Commission. The program requires less credit and contact hours while maintaining the level of rigor required by the Industry-Based Certifications students earn while in the programs. The modifications place emphasis on curriculum development models that promote increased enrollment and program completion.

**Fiscal Impact:** There are no anticipated expenditures associated with the modifications of these programs. Faculty and resources under the existing curriculum will be allocated to the new programs.

**History of Prior Actions:** There is a history of modifying programs due to student and workforce needs.

**Benefits to the System:** The modifications will allow NWLTC to better meet student and workforce needs in other areas.

  
\_\_\_\_\_  
**Approved for Recommendation to the Board**  
**Dr. Monty Sullivan**

4-12-17  
**Date**



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

TYPE OF PROPOSED CHANGE	
<input checked="" type="checkbox"/> New Program	<input type="checkbox"/> Curriculum Modification

AWARD LEVEL(S)	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree <u>Name:</u> _____	<input type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

NAME OF PROGRAM(S) and AWARD LEVEL(S)			
Name: Industrial Manufacturing Technology			
CIP: 150613	Credit Hours: 20	Contact Hours: 450	Award Level: CTS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)
This proposal is to add an additional Certificate to our already existing diploma program. The CTS (Advanced Manufacturing Technician) will allow students a more advanced certificate to meet industry demands. (See attached curriculum)



REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

The addition of this certificate was requested and developed by the manufacturers' council. (See Attached)

IMPLEMENTATION DATE (Semester and Year)	Fall 2017
---	-----------

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus
  All Campuses
  Sites (list below)

Site 1: Minden

Sites: Shreveport

Site 2: Natchitoches

Site 3 Sabine Valley

Site 4: Mansfield

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars
  4 Stars
  3 Stars
  2 Stars
  1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

<input checked="" type="checkbox"/> Use Existing Faculty #: <u>3</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____
---	---	---

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:	Experience: 4 years industry	Certification:
------------	------------------------------	----------------

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>20</u>	<u>18</u>	<u>30</u>	<u>28</u>	<u>35</u>
<u>EVENING</u>					



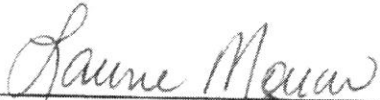
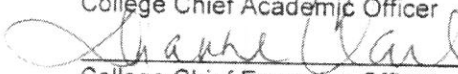
<b>ANTICIPATED ENROLLMENT:</b>	
Describe Process for Attaining & Estimating Enrollment:	This AMT certificate is driven by industry. All students will be recruited and hired by industry to participate in the program. Therefore, each student will have a sponsor industry. The manufacturer's council has requested a maximum participation of 20 in the first cohort group and committed to recruiting and hiring this number. (See attached minutes from manufacturer's meeting)

<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type/Name of Program Accreditation, Licensure or Certification Required:	If YES, please provide projected accreditation/licensure/certification date:

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
For initial implementation of this certificate current faculty will be utilized. In addition, a current Assistant Dean will have oversight of the program. Finally, current equipment will be utilized from the Electrical and Instrumentation program. In essence no additional costs will be incurred in the initial start-up phase.

<b>PROGRAM CURRICULUM</b> (SEE ATTACHED)
(Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer  
  
 \_\_\_\_\_  
 College Chief Executive Officer

3-27-17  
Date

3-27-17  
Date



March 17, 2017

Board of Supervisors  
The Louisiana Community and Technical College System  
265 South Foster Drive  
Baton Rouge, Louisiana 70806

Attention: ***Rene Cintron, Ph.D.***  
*Executive Director, Education and Research*

Dear Dr. Cintron

The items on the attached table are being submitted to the Board of Supervisors for consideration at the April 2017 Board Meeting. (See attachment)

Justification:

The college has revised these curricula to directly align with 4 and 5 star jobs as established by the Louisiana Workforce Commission. In addition, the curricula have been revised to meet federal DOE requirements for determining program eligibility for Title IV funds. Finally, one exit point (CTS) is being added to the Industrial Manufacturing curriculum as a direct request of business/industry. There will be NO additional costs involved with these revisions.

If approved, these actions would be effective August 2017. If you require any additional information, please do not hesitate to contact me directly.

Thank you for your consideration of this request.

Respectfully,

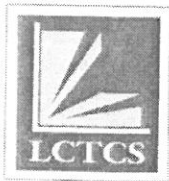
Laurie D Morrow  
Chief Academic Officer

**NORTHWEST LTC CURRICULUM  
REVISIONS**

**EFFECTIVE AUGUST 2017**

<b>Program</b>	<b>Award Level</b>	<b>CIP Code</b>	<b>Old Clock Hours</b>		<b>New Clock Hours</b>		<b>Star Rating</b>
<b>Patient Care Technician</b>	CTS	512601	24	725	24	900	3
<b>Air Conditioning &amp; Refrigeration</b>	TD	470201	45	1350	45	1695	5
<b>Heavy Construction Vehicle Operator</b>	CTS	490202	32	975	32	1205	5
<b>Welding</b>	TD	480508	45	1395	45	1690	5
<b>Industrial Manufacturing addition of CTS</b>	TD	150613	45	1350	45	1690	5
<b>Electrician - Commercial Wiring II</b>	TD	460302	45	1365	45	1690	5
<b>Automotive</b>	TD	470604	45	1350	45	1695	4
<b>Information Technology</b>	TD	110901	45	1350	45	1690	5
<b>Diesel Powered Equipment Technology</b>	TD	470605	60	1815	45	1690	4
<b>Industrial Instrumentation Technology</b>	A.A.S.	150404	60	1605	60	1740	4
<b>Industrial Electrician</b>	TD	460302	45	1395	45	1690	5
<b>Industrial Maintenance</b>	TD	470303	45	1425	45	1700	5





# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

### TYPE OF PROPOSED CHANGE

 New Program

 Curriculum Modification

### AWARD LEVEL(S)

Award Level(s):

 Associate of Applied Science (A.A.S.)

 Associate of Science (A.S.)

 Associate of Arts (A.A.)

 Other Associate Degree

Name: \_\_\_\_\_

 Technical Diploma (T.D.)

 Technical Competency Area (T.C.A.)

 Certificate of Technical Studies (C.T.S.)

 Certificate of Applied Science (C.A.S.)

 Certificate of General Studies (C.G.S.)

### NAME OF PROGRAM(S) and AWARD LEVEL(S)

Name: Industrial Instrumentation Technology

CIP:150404

Credit Hours:60

Contact Hours:1740

Award Level:A.A.S.

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

**DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)**

The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.

REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Minden

Site 2:

Site 3

Site 4:

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

<b>ANTICIPATED ENROLLMENT:</b>					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

<b>PROGRAM ACCREDITATION:</b>		
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:		

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

*Jamie Mason*  
 \_\_\_\_\_  
 College Chief Academic Officer

*Shane Clark*  
 \_\_\_\_\_  
 College Chief Executive Officer

*3-20-17*  
 \_\_\_\_\_  
 Date

*3-20-17*  
 \_\_\_\_\_  
 Date



# 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	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
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>
<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



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

TYPE OF PROPOSED CHANGE	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

AWARD LEVEL(S)	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

NAME OF PROGRAM(S) and AWARD LEVEL(S)			
Name: Industrial Manufacturing Technology			
CIP: 150613	Credit Hours: 45	Contact Hours: 1690	Award Level: TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
<p>This proposal is to add an additional Certificate to our already existing diploma program. The CTS (Advanced Manufacturing Technician) will allow students a more advanced certificate to meet industry demands. In addition, some courses reflect clock hour changes only. This is an effort to satisfy the 37.5 to 1 ratio required by the Federal DOE. (See attached curriculum)</p>



REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

The addition of this certificate was requested and developed by the manufacturers' council. (See Attached)

IMPLEMENTATION DATE (Semester and Year) | Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Minden

Sites: Shreveport

Site 2: Natchitoches

Site 3 Sabine Valley

Site 4: Mansfield

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: 3      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>20</u>	<u>18</u>	<u>30</u>	<u>28</u>	<u>35</u>
<u>EVENING</u>					

<b>ANTICIPATED ENROLLMENT:</b>	
Describe Process for Attaining & Estimating Enrollment:	This AMT certificate is driven by industry. All students will be recruited and hired by industry to participate in the program. Therefore, each student will have a sponsor industry. The manufacturer's council has requested a maximum participation of 20 in the first cohort group and committed to recruiting and hiring this number. (See attached minutes from manufacturer's meeting)

<b>PROGRAM ACCREDITATION:</b>		
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:		

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
For initial implementation of this certificate current faculty will be utilized. In addition, a current Assistant Dean will have oversight of the program. Finally, current equipment will be utilized from the Electrical and Instrumentation program. In essence no additional costs will be incurred in the initial start-up phase.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

*Sannie Meraw*  
 \_\_\_\_\_  
 College Chief Academic Officer

*Shanne Clark*  
 \_\_\_\_\_  
 College Chief Executive Officer

*3-20-17*  
 \_\_\_\_\_  
 Date

*3-20-17*  
 \_\_\_\_\_  
 Date



# Northwest Louisiana Technical College

## Industrial Manufacturing Technology (CIP 15.0613)

**About the Program:** The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare students for employment in a variety of jobs in the industrial manufacturing field. This program consists of a core set of courses and four concentration areas from which the student can choose to make up the diploma.

### Degrees/Certificates

Technical Diploma (TD)

Certificate of Technical Studies (CTS)

Optional prep course is CPTR 1002 (Computer Literacy & Applications)

### CURRICULUM

Course No.	Course Title	Lecture	Lab	Total Credit Hrs.	Total Clock Hrs.
<b>CORE COURSES:</b>					
ORNT 1000	Freshman Seminar	1	0	1	15
IMFG 1100	Introduction to Manufacturing	3	0	3	45
IMFG 1120	Tools and Equipment Used in Manufacturing	1	3	4	135
IMFG 1200	Automation	1	3	4	120
IMFG 1300	Introduction to Fabrication, Process Technology, & Machining	1	3	4	135
	<b>CTS – Certification for Manufacturing (C4M)</b>			<b>16</b>	<b>450</b>
<b>AUTOMATION AND CONTROLS CONCENTRATION: (Core + the following)</b>					
IMFG 1140	Hydraulics Applications	0	3	3	130
IMFG 1130	Pneumatics Applications	0	2	2	130
IMFG 1215	Basic Electronics	2	2	4	130
IMFG 1220	Digital Electronics	1	2	3	145
	<b>CTS- INDUSTRIAL ELECTRONICS TECHNICIAN</b>			<b>28</b>	<b>985</b>
IMFG 1230	Introduction to Programming	1	2	3	125
IMFG 1235	Motor Controls	0	3	3	145
IMFG 1250	Advanced PLC Applications	0	3	3	145
	Elective or Co-op	0	3	3	130
	Elective or Co-op	0	3	3	130
JOBS 2450	Job Seeking Skills	2	0	2	30
	<b>TD – Industrial Manufacturing Technology Automation and Controls Concentration</b>			<b>45</b>	<b>1690</b>
<b>MILLWRIGHT CONCENTRATION: (Core + the following)</b>					
IMFG 1320	Millwright I	3	0	3	90
IMFG 1321	Millwright I Lab	0	2	2	130
IMFG 1420	Millwright II	2	0	2	90
IMFG 1421	Millwright II Lab	0	3	3	130
IMFG 1130	Pneumatics Applications	0	2	2	130
	<b>CTS – MILLWRIGHT APPRENTICE</b>			<b>28</b>	<b>1020</b>
IMFG 1325	Pipefitting	0	2	2	75
IMFG 1140	Hydraulics Applications	0	3	3	130



IMFG 1210	Material Handling	1	1	2	95
IMFG 1315	Welding	0	2	2	115
	Elective or Co-op	0	3	3	130
	Elective or Co-op	0	3	3	130
JOBS 2450	Job Seeking Skills	2	0	2	30
	TD – Industrial Manufacturing Technology Millwright Concentration			45	1690
<b>MACHINE TOOL TECHNOLOGY CONCENTRATION: (Core + the following)</b>					
IMFG 1110	Shop Mathematics	2	1	3	75
IMFG 1310	Machine Shop I	3	3	6	250
IMFG 1340	Basic Lathe	0	3	3	160
IMFG 1440	Basic Mill	0	3	3	160
	CTS-CNC OPERATOR			31	1095
IMFG 1410	Machine Shop II	3	3	6	250
IMFG 2710	CNC	1	2	3	200
IMFG 2720	Precision Grinding	0	3	3	115
JOBS 2450	Job Seeking Skills	2	0	2	30
	TD – Industrial Manufacturing Technology Machine Tool Technology Concentration			45	1690
<b>INDUSTRIAL INSTRUMENTATION &amp; ELECTRICAL CONCENTRATION: (Core + the following)</b>					
INST 1110	Introduction to Industrial Instrumentation	1	2	3	75
IET 1433	Wiring/Electrical Blueprint Interpretation	2	1	3	140
IET 1214	Basic Electronics	1	2	3	140
ELMT 2520	National Electrical Code	0	2	2	140
	CTS – Instrumentation/Electrical Technician			27	945
IET 2123	Understanding Programmable Controllers	1	2	3	140
IMFG 1235	Motor Controls	0	3	3	140
INST 1330	Pressure and Level Measurement	1	3	4	145
IET 1413	Flow and Final Control	2	1	3	145
IET 2733	Introduction to Temperature & Analytical Processes	2	1	3	145
JOBS 2450	Job Seeking Skills	2	0	2	30
	TD – Industrial Manufacturing Technology Industrial Instrumentation & Electrical Technician Concentration			45	1690
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>					
IMFG 2991	Special Projects I	0	1	1	30
IMFG 2993	Special Projects II	0	2	2	60
IMFG 2995	Special Projects III	0	3	3	90
IMFG 2996	Special Projects IV	3	0	3	45
IMFG 2998	Special Projects V	1	0	1	15
IMFG 2997	Practicum	0	3	3	135
IMFG 2999	Cooperative Education	0	3	3	135

*With approval from the Chief Academic Officer/designee, the following courses may taken as a stand-alone certificate.*

ADMT 1100	Safety Culture	1	0	1	15
ADMT 1110	Workplace Organization	1	0	1	15
ADMT 1115	Fluid Power	1	2	3	75
ADMT 1120	Intro to Motor Controls	1	2	3	75
ADMT 1125	Welding for Maintenance	1	2	3	75
ADMT 1200	Lean Manufacturing	1	0	1	15
ADMT 1210	Programmable Logic Controllers	1	2	3	75
ADMT 1230	Integrated Control Systems	1	2	3	75
ADMT 1240	Problem Solving	1	0	1	15
ADMT 1250	Maintenance Reliability	1	0	1	15
	CTS – Advanced Manufacturing Technician			20	450

**Advanced Manufacturing Technician**  
**Northwest Louisiana Technical College – Natchitoches Campus**  
**Program Discussion Minutes**

March 6, 2017

Organizations/Attendees to the meeting included Alliance Compressors – Natchitoches (Brian Brock, Production Manager; Ken Gardner, Plant Manager; Michael Richard, Lean Manufacturing Manager), Boise Cascade – Lena (David Elliott, Plant Manager), RoyOMartin (Donna Bailey, Human Resource Manager, Oakdale), Coordinating and Development Corporation – Shreveport (Nada Percival, Vice President, Workforce Development, Comptroller; Knox Ross, President & CEO), Louisiana Community and Technical College System (Laurie Morrow, Dean, Northwest Louisiana Technical College (NWLTC) - Natchitoches campus, Natchitoches; Patrick Murphy, Project Manager, Workforce Development, Central La. Technical Comm. College, Alexandria; Nub Parker, Director, Manufacturing Center, Central Louisiana Technical Community College, Alexandria; Karl Young, Assistant Dean, NWLTC - Natchitoches Campus, Natchitoches), Northwestern State University – Natchitoches (Dr. Ali Ahmad, Department Head, Engineering Technology; Dr. Margaret Kilcoyne, Interim Dean, College of Business and Technology), Central Louisiana Economic Development Alliance – Alexandria (Wayne Denley, Vice President, Knowledge Platforms), and Natchitoches Community Alliance – Natchitoches (Mike Wolff, Vice President, Economic Development).

The group toured the newly designated Manufacturing Resource Center at the Northwest Louisiana Technical College (NWLTC) – Natchitoches campus. This space was the former automotive repair training center.

The group reconvened in the meeting space and reviewed upcoming events and training opportunities that include:

- [www.fame-usa.com](http://www.fame-usa.com) – upcoming events
- Benchmark Trip – March 22, San Antonio, Texas
- The Advanced Manufacturing Career Pathways/AMT Conference - May 15-17 - Florence, Kentucky
- Hope Street Group AMT Conference – May 23 – 25 – Washington D. C.
- AMT Academy – July 10 – 21 – Georgetown, Kentucky
  - July 10 – 14 – AMT program matters
    - July 17 – 21 – AMT instructor training
      - Safety culture, workplace organization, lean manufacturing problem solving
- 2017 National Career Pathways Network (NCPN) National Conference – Oct 25 – 27, St. Louis, Missouri
- AMT Academy training – November/December – specifics pending
  - AMT instructor training – one week - maintenance reliability

A key outcome of this meeting is to ensure the curriculum contained sufficient technical instruction to satisfy the technical needs for each participating manufacturer. The attached draft curriculum and course descriptions for the AMT program was reviewed. The course work includes 60 – 65 hours of credit from NSU Engineering Technology program with courses pulled from the Industrial Engineering Technology track along with some additional courses pulled from the Electronic Engineering Technology track. The course work also includes 15 – 20 credit hours of instruction on technical course content directly from the technology college.

Since the two-year program platform is the Associate of Science degree compared to the Associate of Applied Science curriculum, there is a requirement for 27 general education hours compared to 15 general education hours. This higher level of general education hours can provide a better bridge for additional education toward a Bachelor of Science degree with a requirement of 39 general education course credits. Discussion centered around the options for the general education course work. Dr. Ahmad will send out to the group the allowed options for feedback.

The initial reaction from the group is that the technical courses appear to cover the full basis, but each manufacturer was tasked to bring this curriculum and course descriptions back to the technical leaders at their facilities for feedback. With this feedback, Dr. Ahmad will do a final tweak of the curriculum and submit this course grouping to the NSU



Curriculum Review Committee (CRC) for approval as a third concentration for an Associate of Science degree from NSU Engineering Technology called the Advanced Manufacturing Technology concentration.

Student recruitment was discussed with a target student needing to be college ready since they will have to apply and be admitted to NSU. Target recruitment include graduating high school seniors admitted to NSU with a key focus on those students expressing an interested in the Engineering Technology program, current NSU students and students identified by regional Career Compass counselors as college ready and interested in a technical program. Mike and Dr. Ahmad will meet with NSU Recruiting Director Jana Lucky to discuss university recruiting opportunities.

Program logistics were discussed that included:

- With a minimum of 10 students, the AMT courses will receive a special section with all courses taught at the NWLTC – Natchitoches Campus with students applying and enrolling through NSU. There will be an emphasis for the general education courses to imbed manufacturing related exercises in the course material.
- NSU program lead is Dr. Ali Ahmad; NWTLC – Natchitoches Campus lead is Laurie Morrow; Economic Development/Community lead is Mike Wolff; each participating manufacturer needs to identify a lead contact for their business
- Once a student applies and is eligible, their information will be passed along to the manufacturer they designated or to each participating manufacturer if no designation; each eligible student will be informed to reach out directly to the participating manufacturers for sponsorship discussion and selection
- Early application period is April 3 – May 15; late application period is May 16 – June 15. Students submitting applications during the early application period and become eligible will be given preferred consideration
- Manufacturers will select their sponsored students starting June 20 and expect to complete around July 1; if multiple manufacturers select the same student, the recommended placement process is to first place a student with the manufacturer that recruited the student and provided recruitment notice to the NSU and NWLTC program coordinators; and second, if there was not a specific manufacturer who recruited that student, then placement assignments will be conducted on a first come, first placed basis
- Each student is required to sign an agreement to allow sponsoring manufacturer to have access to school attendance and performance information
- If a student dos not perform to acceptable standards in the classroom or manufacturing role, this student can be fired and released by the sponsoring manufacturer
- Once a student is enrolled and no longer employed by the original sponsoring manufacturer, the student is not eligible to re-enroll for the current program; the student may apply for a subsequent AMT program

Funding opportunities were discussed. Areas of opportunity being explored through CDC include equipment funding and on-the-job grant funds for the initial period of the labor cost for the student interns.

To do items include:

- Each organization will review the upcoming events and determine their involvement with each to ensure the highest success of the AMT launch in our region
- Dr. Ahmad will provide the general education options for feedback
- Each manufacturer will provide feedback on the technical content and their take on the general education options
- With this feedback, Dr. Ahmad will submit the Advanced Manufacturing Technology concentration to the NSU CRC for review and approval
- Dr. Ahmad and Mike Wolff will meet with NSU Recruiting Director Jana Lucky and Career Compass Regional Director Krystal Burch to discuss program recruitment
- Dr. Ahmad and Laurie Morrow will pull together an agreement between NSU and NWLTC
- Dr. Ahmad and Laurie Morrow will pull together an agreement between each participating manufacturer and the AMT program and provide to the manufacturers for their feedback and approval
- Dr. Ahmad and Mike Wolff will develop the AMT program website with brochure, curriculum and application
- Dr. Ahmad and Laurie Morrow, with input from the manufacturers, will pull together qualified instructors for the AMT program



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree <u>Name:</u> _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Industrial Maintenance			
CIP470303	Credit Hours:45	Contact Hours:1700	Award Level:TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
<p>The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.</p>



REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Natchitoches

Site 2: Sabine Valley

Site 3

Site 4:

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------



ANTICIPATED ENROLLMENT:					
DAY					
EVENING					
Describe Process for Attaining & Estimating Enrollment:					

PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer

  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 \_\_\_\_\_  
 Date

3-20-17  
 \_\_\_\_\_  
 Date

# Northwest Louisiana Technical College

## Industrial Maintenance Technology

### Program Description & Curriculum

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare students for employment in a variety of jobs in the industrial maintenance field. This program prepares individuals to install, repair, and maintain industrial machinery and equipment such as pumps, motors, pneumatic and hydraulic systems, and production machinery.

#### Degrees/Certificates

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 470303**

Industrial Maintenance Technology CURRICULUM				
Course #	Course Title	Lecture /Lab Hours	Credit Hours	Clock Hours
IMMT 1110	Introduction to Industrial Maintenance Technology	1/0	1	15
IMMT 1111	Welding I	0/3	3	150
IMMT 1211	Material Handling	0/1	1	30
<b>TCA - Welder Helper</b>			<b>5</b>	<b>195</b>
<b>IMMT 1110 plus</b>				
IMMT 1112	Welding II	0/2	2	115
IMMT 1120	Blueprint Reading	2/0	2	30
<b>TCA- Fabrication Apprentice</b>			<b>10</b>	<b>145</b>
<b>IMMT 1110 plus</b>				
IMMT 1311	Pipefitting	0/2	2	60
IMMT 1410	Basic Electricity	1/0	1	30
IMMT 1411	Basic Electricity Lab	0/3	3	90
<b>TCA – Electrical Helper</b>			<b>7</b>	<b>180</b>
<b>IMMT 1110 plus</b>				
IMMT 1220	Pneumatics	3/0	3	90
IMMT 1221	Pneumatics Application	0/2	2	85
<b>TCA – Pneumatic Helper</b>			<b>6</b>	<b>175</b>
<b>IMMT 1110 plus</b>				
IMMT 1230	Hydraulics	3/0	3	90
IMMT 1440	Programmable Logic Controllers	0/3	3	120
IMMT 1241	Hydraulics Troubleshooting Projects	0/3	3	150
<b>TCA – Hydraulic Helper</b>			<b>10</b>	<b>360</b>
<b>CTS – Pneumatic/Hydraulic Apprentice</b>			<b>29</b>	<b>1055</b>
<b>IMMT 1110 plus</b>				
IMMT 1320	Millwright I	3/0	3	90
IMMT 1321	Millwright I Lab	0/2	2	150

<b>TCA – Millwright Helper</b>			<b>6</b>	<b>240</b>
<i>IMMT 1110, IMMT 1111, IMMT 1211, IMMT 1112, IMMT 1120, IMMT 1311, IMMT 1410, IMMT 1411, IMMT 1220, IMMT 1221, IMMT 1320, IMMT 1321 plus</i>				
IMMT 1330	Millwright II	2/0	2	90
IMMT 1331	Millwright II Lab	0/3	3	150
<b>CTS – Millwright Apprentice</b>			<b>39</b>	<b>1535</b>
IMMT 1430	Motor Controls	0/4	4	135
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>TD – Industrial Maintenance Technology</b>			<b>45</b>	<b>1700</b>
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
IMMT 2991	Special Projects I	0/1	1	30
IMMT 2993	Special Projects II	0/2	2	60
IMMT 2995	Special Projects III	0/3	3	90
IMMT 2996	Special Projects IV	3/0	3	45
IMMT 2997	Practicum	0/3	3	135
IMMT 2999	Cooperative Education	0/3	3	135





## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### New Program and Curriculum Modification Form

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Automotive			
CIP470604	Credit Hours: 45	Contact Hours: 1695	Award Level: TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
<p>The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.</p>

**REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)**

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

**IMPLEMENTATION DATE (Semester and Year)** Fall 2017

**SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION**
 Main Campus       All Campuses       Sites (list below)

Site 1: Shreveport

Site 2:

Site 3

Site 4:

**LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)**
 5 Stars       4 Stars       3 Stars       2 Stars       1 Star

**PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)**
 Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
    #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:      Experience: 4 years industry      Certification:

**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

<b>ANTICIPATED ENROLLMENT:</b>					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

<b>PROGRAM ACCREDITATION:</b>		
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:		

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

*Laurie Morrow*  
 \_\_\_\_\_  
 College Chief Academic Officer

*Deann Clark*  
 \_\_\_\_\_  
 College Chief Executive Officer

*3-20-17*  
 \_\_\_\_\_  
 Date

*3-20-17*  
 \_\_\_\_\_  
 Date



# Northwest Louisiana Technical College

## Automotive Technology

### Program Description & Curriculum

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare individuals to engage in the servicing and maintenance of all types of automobiles at the entry level. The competencies in the automotive technology program directly correlate with the knowledge required to prepare an individual for the certification test given by the National Institute for Automotive Service Excellence (ASE).

#### Degrees/Certificates

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

Certificate of Technical Studies (CTS)

Technical Competency Area (TCA)

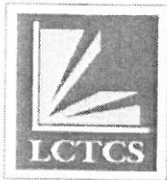
Available degrees and certificates may vary at each campus. Check with your local campus for more information.

**CIP 470604**

Automotive Technology CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
AUTO 1002	Introduction to Automotive Technology	2/0	2	60
AUTO 1542	Brakes	1/3	4	150
TCA – Brake Technician			6	210
<i>AUTO 1002 plus</i>				
AUTO 1671	Electronics I	1/4	5	185
AUTO 1680	Electronics II	0/5	5	185
TCA – Electrical Technician			12	430
<i>AUTO 1002 plus</i>				
AUTO 1342	Transmission, Transaxle, & Manual Drives	1/5	6	210
TCA – Automatic Transmission & Transaxle Technician			8	270
<i>AUTO 1002 plus</i>				
AUTO 1860	Engine Performance I	1/4	5	185
AUTO 1870	Engine Performance II	0/4	4	150
TCA – Engine Performance Technician			11	395
<i>AUTO 1002 plus</i>				
AUTO 1451	Steering and Suspension	1/5	6	210
TCA – Steering and Suspension Technician			8	270
<i>AUTO 1002 plus</i>				
AUTO 1140	Engine Repair	1/3	4	180
TCA – Engine Repair Technician			6	240
<i>AUTO 1002 plus</i>				
AUTO 1750	Heating and AC	1/3	4	180
TCA – Heating and Air Conditioning Technician			6	240
TD – Automotive Technician			45	1695

<i>Following are additional CTS exit points: Students must have completed AUTO 1002</i>				
<b>CTS – Engine Performance Technician</b>			<b>21</b>	<b>645</b>
Complete the following TCAs: All TCAs include Auto 1002				
TCA – Electrical Technician			12	330
TCA – Engine Performance Technician			11	315
<b>CTS – Electrical Technician</b>			<b>21</b>	<b>690</b>
Complete the following TCAs: All TCAs include Auto 1002				
TCA – Engine Repair Technician			6	165
TCA – Automatic Transmission & Transaxle Technician			8	195
TCA – Brake Technician			6	150
TCA – Heating and Air Conditioning Technician			6	180
<b>CTS – Power Train Technician</b>			<b>20</b>	<b>675</b>
Complete the following TCAs: All TCAs include Auto 1002				
TCA – Engine Repair Technician			6	165
TCA – Automatic Transmission & Transaxle Technician			8	195
TCA – Steering and Suspension Technician			6	165
TCA – Brake Technician			6	150
<b>General Electives</b>				
AUTO 1150	Automotive Internship I	0/4	4	180
AUTO 1250	Automotive Internship II	0/4	4	180
AUTO 1350	Automotive Internship III	0/2	2	90
AUTO 1450	Automotive Internship IV	0/5	5	240
AUTO 1550	Automotive Internship V	0/5	5	240
AUTO 1670	Automotive Internship VI	0/4	4	180
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
AUTO 2991	Special Projects I	0/1	1	30
AUTO 2993	Special Projects II	0/2	2	60
AUTO 2995	Special Projects III	0/3	3	90
AUTO 2996	Special Projects IV	3/0	3	45
AUTO 2998	Special Projects V	1/0	1	15
AUTO 2997	Practicum	0/3	3	135
AUTO 2999	Cooperative Education	0/3	3	135





**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Electrician-Commercial Wiring II			
CIP:460302	Credit Hours:45	Contact Hours:1690	Award Level:TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.



REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Mansfield

Site 2: Shreveport

Site 3

Site 4:

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

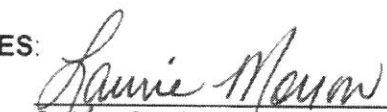

<b>ANTICIPATED ENROLLMENT:</b>					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer  
  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 \_\_\_\_\_  
 Date  
 3-20-17  
 \_\_\_\_\_  
 Date



# Northwest Louisiana Technical College

## ***ELECTRICIAN-COMMERCIAL WIRING II***

### **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**

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**

<b>Electrician-Commercial Wiring II CURRICULUM</b>				
<b>Course #</b>	<b>Course Title</b>	<b>Lecture /Lab Hours</b>	<b>Credit Hours</b>	<b>Clock Hours</b>
ORNT 1000	Freshman Seminar	1/0	1	15
ELEC 1120	Basic Electricity	2/4	6	200
ELEC 1210	Residential Wiring	2/4	6	200
<b>TCA – Electrician Helper</b>			<b>13</b>	<b>415</b>
ELEC 2460	Technical Mathematics for Electricians	1/1	2	60
ELEC 1220	Electrical Raceways	0/3	3	150
ELEC 1230	National Electrical Code	0/2	2	115
ELEC 1311	Residential Wiring Installation	1/5	6	180
ELEC 1430	Blueprint Interpretation	1/2	3	75
CPTR 1000	Introduction to Computers	1/1	2	45
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>Basic Electrical Core CTS – Residential Electrician</b>			<b>33</b>	<b>1070</b>
<i>Technical Diplomas in specialized areas require the completion of the basic core courses PLUS the completion of specialty courses listed in the following groups:</i>				
ELEC 1330	Generators/Motors and Transformer Operation	0/2	2	115
ELEC 1420	Introduction to Motor Controls	0/2	2	115
ELEC 1440	Motor Controls	0/3	3	160
ELEC 2520	Solid State Theory	1/2	3	75
ELEC 2540	Logic Functions	0/2	2	90
ELEC 2720	Introduction to Programmable Logic Controllers	0/2	2	90
<b>TD – Industrial Electrician</b>			<b>47</b>	<b>1715</b>
<i>ELEC 1330, 1420, 1440, 2520, 2540 plus</i>				
ELEC 2530	Marine Electricity	1/4	5	553
<b>TD – Marine Electrician</b>			<b>50</b>	<b>1690</b>
ELEC 2542	Electrical Work Based I	1/7	8	330
ELEC 2543	Electrical Work Based II	1/5	6	240
<b>TD – Commercial Wiring I</b>			<b>47</b>	<b>1425</b>
<i>ELEC 1330, 1420, 1440 plus</i>				
ELEC 1410	Commercial Wiring	1/4	5	230
<b>TD – Commercial Wiring II</b>			<b>45</b>	<b>1690</b>
<i>Optional Electives</i>				



## Program Description &amp; Curriculum

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
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
<i>Additional Exit Points</i>				
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
			<b>TCA – ELEC: Solar Systems Installer</b>	<b>12</b>
ELEC 1120	Basic Electricity	2/4	6	150
ELEC 1210	Residential Wiring	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 1420	Introduction to Motor Controls	0/2	2	90
<i>Above six courses plus SOLR 1000, 1010, and 1020</i>			<b>CTS – ELEC: Energy Systems Technician</b>	<b>33</b>
				<b>885</b>



**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Industrial Electrician			
CIP460302	Credit Hours:45	Contact Hours:1690	Award Level:TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.

REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Mansfield

Site 5: Shreveport

Site 2: Minden

Site 3: Natchitoches

Site 4: Sabine Valley

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:

Experience: 4 years industry

Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------



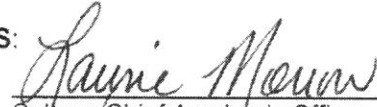
ANTICIPATED ENROLLMENT:					
DAY					
EVENING					
Describe Process for Attaining & Estimating Enrollment:					

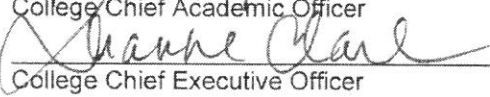
PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer

  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 Date

3-20-17  
 Date

# 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	120
ELEC 1131	Basic Electronics	1/3	4	120
<b>TCA – Electrician Helper I</b>			<b>9</b>	<b>255</b>
<i>ELEC 1000, ELEC 1111, ELEC 1131 PLUS</i>				
ELEC 1212	Residential & Commercial Wiring I	0/3	3	90
ELEC 1213	Residential & Commercial Wiring II	0/3	3	90
ELEC 2460	Technical Mathematics for Electricians	1/1	2	70
<b>TCA – Electrician Helper II</b>			<b>17</b>	<b>505</b>
<i>ELEC 1000, ELEC 1111, ELEC 1131, ELEC 1212, ELEC 1213, ELEC 2460 PLUS</i>				
ELEC 1313	Industrial Wiring Installation I	0/3	3	90
ELEC 1314	Industrial Wiring Installation II	0/3	3	90
ELEC 1220	Electrical Raceways	0/3	3	120
ELEC 1230	National Electrical Code	0/2	2	120
ELEC 1430	Blueprint Interpretation	1/2	3	120
<b>CTS – Industrial Electrician Apprentice</b>			<b>31</b>	<b>1045</b>
<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	120
ELEC 1450	Variable Frequency Drives	0/2	2	120
ELEC 1440	Motor Controls	0/3	3	135
ELEC 2630	Introduction to Process Controllers, Level, Temperature, Pressure and Flow	0/3	3	150
ELEC 2620	Programmable Logic Controllers	0/4	4	120
<b>TD – Industrial Electrician</b>			<b>45</b>	<b>1690</b>
<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
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
<b>Additional Exit Points</b>				
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
<b>TCA – ELEC: Solar Systems Installer</b>			<b>12</b>	<b>270</b>
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>			<b>CTS – ELEC: Energy Systems Technician</b>	<b>35</b>
				<b>960</b>





**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree <u>Name:</u> _____	<input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Welding			
CIP:480508	Credit Hours:45	Contact Hours:1690	Award Level:TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<p><b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b></p> <p>The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.</p>
--

REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1:

Site 2:

Site 3:

Site 4:

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

ANTICIPATED ENROLLMENT:					
DAY					
EVENING					
Describe Process for Attaining & Estimating Enrollment:					

PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer

  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 \_\_\_\_\_  
 Date

3-20-17  
 \_\_\_\_\_  
 Date



# Northwest Louisiana Technical College

## Welding

### Program Description & Curriculum

The purpose of the Welding Program is to prepare individuals for employment in the field of welding. Instruction is provided in various welding processes and techniques including oxyfuel cutting, carbon arc cutting, shielded metal arc welding, gas tungsten arc welding, flux-cored arc welding, gas metal arc welding, pipe-welding, plasma arc cutting, blueprint reading, weld symbols, and joints.

#### Degrees/Certificates

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 480508**

Welding CURRICULUM				
Course #	Course Title	Lecture /Lab Hours	Credit Hours	Clock Hours
WELD 1111	Occupational Orientation and Safety	2/0	2	30
<i>WELD 1111 PLUS</i>				
WELD 1141	Electrical Fundamentals	1/1	2	75
			<b>TCA - WELDER HELPER</b>	<b>4</b>
				<b>105</b>
<i>WELD 1111 PLUS</i>				
WELD 1211	Oxyfuel Systems/ Cutting Processes	1/2	3	115
			<b>TCA - THERMAL CUTTER</b>	<b>5</b>
				<b>145</b>
<i>WELD 1111 PLUS</i>				
WELD 1141	Electrical Fundamentals	1/1	2	75
WELD 1211	Oxyfuel Systems/ Cutting processes	1/2	3	115
WELD 1131	Welding Inspection & Testing	1/1	2	45
WELD 1413	SMAW Basic Beads	1/1	2	150
WELD 1411	SMAW Fillet Weld	0/3	3	150
			<b>CTS - WELDER HELPER II</b>	<b>14</b>
				<b>565</b>
<i>CTS Welder Helper II PLUS</i>				
WELD 1122	Basic Blueprint, Metallurgy, and Weld Symbols	2/1	3	60
WELD 1421	SMAW V-Groove Open/BU/GOUGE	1/3	4	120
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
WELD 2211	GTAW Basic Multi-Joint	1/2	3	120
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 1510	SMAW Pipe 2G	1/3	4	165
WELD 1511	SMAW Pipe 5G	0/4	4	165
WELD 1512	SMAW Pipe 6G	0/4	4	165
JOBS 2450	Job Seeking Skills	2/0	2	30
			<b>TD - WELDING</b>	<b>45</b>
				<b>1690</b>

<i>Additional Exit Points</i>				
WELD 1122	Basic Blueprint, Metallurgy, and Weld Symbols	2/1	3	60
WELD 1131	Welding Inspection & Testing	1/1	2	45
<b>TCA - BASIC BLUEPRINT READING AND WELD TESTING</b>			<b>5</b>	<b>105</b>
WELD 1413	SMAW Basic Beads/ Fillet Weld	1/2	3	150
WELD 1421	SMAW V-Groove BU/Groove V-groove Open	1/3	4	120
<b>TCA - SMAW-ARC WELDER FILLET &amp; V-GROOVE</b>			<b>7</b>	<b>270</b>
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
<b>TCA - FCAW- BASIC WELDS</b>			<b>3</b>	<b>150</b>
WELD 2211	GTAW Basic Multi-Joint	1/2	3	120
WELD 2231	GTAW Aluminum Multi-Joint	1/2	3	120
<b>TCA - GTAW ARC WELDER</b>			<b>6</b>	<b>240</b>
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 1413	SMAW Basic Beads/ Fillet Weld	1/2	3	150
<b>TCA - Basic Welds</b>			<b>7</b>	<b>300</b>
WELD 1510	SMAW Pipe 2G	1/3	4	165
WELD 1511	SMAW Pipe 5G	0/4	4	165
WELD 1512	SMAW Pipe 6G	0/4	4	165
<b>TCA - SMAW PIPE WELDER</b>			<b>12</b>	<b>495</b>
WELD 2312	GMAW Basic Fillet/Groove Weld	1/3	4	150
WELD 2100	FCAW Basic Fillet Weld/Groove Welds	1/2	3	150
<b>TCA - GMAW &amp; FCAW BASIC WELDS</b>			<b>7</b>	<b>300</b>
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
WELD 2991	Special Projects I	0/1	1	30
WELD 2993	Special Projects II	0/2	2	60
WELD 2995	Special Projects III	0/3	3	90
WELD 2996	Special Projects IV	3/0	3	45
WELD 2997	Practicum	0/3	3	135
WELD 2999	Cooperative Education	0/3	3	135



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

### TYPE OF PROPOSED CHANGE

 New Program

 Curriculum Modification

### AWARD LEVEL(S)

Award Level(s):

 Associate of Applied Science (A.A.S.)

 Associate of Science (A.S.)

 Associate of Arts (A.A.)

 Other Associate Degree  
Name: \_\_\_\_\_
 Technical Diploma (T.D.)

 Technical Competency Area (T.C.A.)

 Certificate of Technical Studies (C.T.S.)

 Certificate of Applied Science (C.A.S.)

 Certificate of General Studies (C.G.S.)

### NAME OF PROGRAM(S) and AWARD LEVEL(S)

Name: Air Conditioning and Refrigeration

CIP: 470201

Credit Hours: 45

Contact Hours: 1695

Award Level: TD

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

**DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)**

The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.



REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Natchitoches

Site 2: Shreveport

Site 3: David Wade Correctional

Site 4: Caddo Correctional

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

ANTICIPATED ENROLLMENT:					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

PROGRAM ACCREDITATION:		
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:	
Type/Name of Program Accreditation, Licensure or Certification Required:		

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

PROGRAM CURRICULUM (SEE ATTACHED)
(Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)

**SIGNATURES:**

Laurie Moun  
College Chief Academic Officer

Travis Clark  
College Chief Executive Officer

3-20-17  
Date

3-20-17  
Date



# Northwest Louisiana Technical College

## Air Conditioning and Refrigeration Technician

### Program Description & Curriculum

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare students for employment in a variety of jobs in the field of heating, air conditioning, and refrigeration. The Air Conditioning and Refrigeration program prepares individuals to install, diagnose, repair, and maintain the operating condition of domestic, residential, and commercial heating air conditioning, and refrigeration systems.

#### Degrees/Certificates

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 470201**

Air Conditioning and Refrigeration Technician CURRICULUM				
Course #	Course Title	Lecture /Lab Hours	Credit Hours	Clock Hours
HACR 1150	HVAC Introduction	1/2	3	100
HACR 1160	Principles of Refrigeration I	1/2	3	115
HACR 1170	Principles of Refrigeration II	1/2	3	115
HACR 1180	Principles of Refrigeration III	1/2	3	120
<b>TCA – HVAC Helper I</b>			<b>12</b>	<b>450</b>
HACR 1210	Electrical Fundamentals	1/2	3	100
HACR 1220	Electrical Components	1/2	3	115
HACR 1230	Electric Motors	1/2	3	115
HACR 1240	Applied Electricity and Troubleshooting	1/2	3	120
<b>CTS – HVAC Helper II</b>			<b>24</b>	<b>900</b>
HACR 1410	Domestic Refrigeration	1/1	2	75
HACR 1420	Room Air Conditioners	1/1	2	75
<b>CTS - Domestic A/C &amp; Refrigeration Technician</b>			<b>28</b>	<b>1050</b>
HACR 2510	Residential Central Air Conditioning I	1/2	3	115
HACR 2520	Residential Central Air Conditioning II	1/1	2	115
HACR 2530	Residential System Design	1/1	2	75
HACR 2540	Residential Heating I	1/2	3	115
HACR 2550	Residential Heating II	1/2	3	115
HACR 2560	Residential Heat Pumps	1/1	2	80
JOBS 2450	Job Seeking Skills	2/0	2	30
Successful completion of TCA Helper I, CTS Helper II, and CTS Domestic A/C Refrigeration Tech, and completion of above seven courses:			<b>45</b>	<b>1695</b>
<b>TD – Residential A/C &amp; Refrigeration Technician</b>				
<b>Additional Exit Point:</b>				
HACR2510	Residential Central Air Conditioning I	1/2	3	90
SOLR 1000	Solar Fundamentals	3/0	3	45
SOLR 1030	Solar Thermal Applications	1/2	3	75
Successful completion of CTS Helper II plus above 3 courses.			<b>33</b>	<b>1110</b>
<b>CTS – HACR Energy Systems Technician</b>				
HACR 2810	Commercial Air Conditioning I	2/4	6	265



HACR 2820	Commercial Air Conditioning Controls	3/4	7	265
HACR 2830	Commercial Air Conditioning II	2/4	6	235
<i>Successful completion of TCA Helper I, CTS Helper II, JOBS 2450, and the above 3 courses.</i>				
<b>TD – Commercial Air Conditioning Technician</b>			<b>45</b>	<b>1695</b>
HACR 2910	Commercial Refrigeration I	2/4	6	265
HACR 2920	Commercial Refrigeration Controls	3/4	7	265
HACR 2930	Commercial Refrigeration II	2/4	6	235
<i>Successful completion of TCA Helper I, CTS Helper II, JOBS 2450, and the above 3 courses.</i>				
<b>TD – Commercial Refrigeration Technician</b>			<b>45</b>	<b>1695</b>
<i>Transferrable General Education Courses Required for AAS</i>				
ENGL 1015	English Composition I	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	3/0	3	45
SPCH 1015	Introduction to Public Speaking	3/0	3	45
<b>AAS – Air Conditioning and Refrigeration</b>			<b>60</b>	<b>1575</b>
<i>Optional Electives</i>				
CPTR 1000	Introduction to Computers	1/1	2	45
CSRV 1000	Customer Service	3/0	3	45
CSRV 2000	Customer Service & Sales	3/0	3	45
ENTP 1000	Foundation of Entrepreneurship	3/0	3	45
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
<i>The following courses may be substituted for the above course requirements with approval from Chief Academic Officer.</i>				
SPPR 2991	Special Projects I	0/1	1	30
SPPR 2993	Special Projects II	0/2	2	60
SPPR 2995	Special Projects III	0/3	3	90
SPPR 2996	Special Projects IV	3/0	3	45
SPPR 2998	Special Projects V	1/0	1	15
SPPR 2997	Practicum	0/3	3	135
SPPR 2999	Cooperative Education	0/3	3	135
<i>Additional TCA Exit Point:</i>				
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
<b>TCA – Solar Systems Installer</b>			<b>12</b>	<b>270</b>



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## New Program and Curriculum Modification Form

### TYPE OF PROPOSED CHANGE

 New Program

 Curriculum Modification

### AWARD LEVEL(S)

Award Level(s):

 Associate of Applied Science (A.A.S.)

 Associate of Science (A.S.)

 Associate of Arts (A.A.)

 Other Associate Degree

Name: \_\_\_\_\_

 Technical Diploma (T.D.)

 Technical Competency Area (T.C.A.)

 Certificate of Technical Studies (C.T.S.)

 Certificate of Applied Science (C.A.S.)

 Certificate of General Studies (C.G.S.)

### NAME OF PROGRAM(S) and AWARD LEVEL(S)

Name: Diesel Powered Equipment Technology

CIP:470605

Credit Hours:45

Contact Hours:1690

Award Level:TD

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

**DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)**

The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.

**REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)**

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

**IMPLEMENTATION DATE (Semester and Year)** Fall 2017

**SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION**

Main Campus       All Campuses       Sites (list below)

Site 1: Shreveport

Site 2:

Site 3

Site 4:

**LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)**

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

**PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)**

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:      Experience: 4 years industry      Certification:

**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------



ANTICIPATED ENROLLMENT:					
DAY					
EVENING					
Describe Process for Attaining & Estimating Enrollment:					

PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes
	<input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

PROGRAM CURRICULUM (SEE ATTACHED)
(Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)

**SIGNATURES:**

*Ramie Moun*  
College Chief Academic Officer

*Shane Clark*  
College Chief Executive Officer

3-20-17  
Date

3-20-17  
Date

# Northwest Louisiana Technical College

## Diesel Powered Equipment Technology

### Program Description & Curriculum

The purpose of this program is to provide specialized classroom instruction and practical shop experience to prepare individuals for employment as job entry-level diesel powered equipment technicians. The program prepares the individual to select, safely use, and maintain hand and power tools, jacks, and hoisting equipment. The content includes, but is not limited to, disassembling engines and replacing parts, fuel injection systems, oil and water pumps, electrical systems, steering and suspension systems, brake systems, drive train, and chassis.

### Degrees/Certificates

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 470605

Diesel Powered Equipment Technology CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 1130	Diesel Engine Parts Identification & Operating PRI	2/2	4	120
<b>TCA – Diesel Technician Helper</b>		<b>7</b>	<b>225</b>	
DPET 1140	Engines I	1/2	3	105
DPET 1240	Diesel Engine Fuel Systems	1/2	3	130
DPET 1210	Basic Diesel Electrical Systems	2/2	4	120
DPET 1231	Diesel Engine Control Systems	1/1	2	60
DPET 1150	General Engine Diagnostics	1/2	3	150
DPET 1310	Introduction to Power Trains	1/1	2	60
DPET 1320	Transmissions	1/2	3	105
DPET 2110	Basic Hydraulics	1/1	2	150
DPET 2130	Brakes	1/3	4	150
DPET 2210	Fundamentals of Suspension	1/2	3	75
DPET 2220	Air Conditioning	2/2	4	180
DPET 2240	Diesel Preventive Maintenance	1/2	3	150
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>TD – Diesel Powered Equipment Technician</b>			<b>45</b>	<b>1690</b>
<i>Optional Elective</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
<i>With approval from the Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements.</i>				
DPET 2991	Special Projects I	0/1	1	30
DPET 2993	Special Projects II	0/2	2	60
DPET 2995	Special Projects III	0/3	3	90
DPET 2996	Special Projects IV	3/0	3	45
DPET 2997	Practicum	0/3	3	135
DPET 2999	Cooperative Education	0/3	3	135
DPET 1251	Alternative Fuel Systems	1/1	2	45
DPET 2120	Advanced Hydraulics	1/2	3	105

DPET 2231	Welding	1/1	2	60
<i>Below are Certificate Exit Levels</i>				
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 2220	Air Conditioning	2/2	4	130
<b>TCA – Air Conditioning Technician</b>			<b>8</b>	<b>235</b>
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 2210	Fundamentals of Suspension	1/2	3	75
<b>TCA – Steering and Suspension Technician</b>			<b>6</b>	<b>180</b>
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 2110	Basic Hydraulics	1/1	2	150
DPET 2130	Brakes	1/3	4	150
<b>TCA – Brake Technician</b>			<b>9</b>	<b>405</b>
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 1130	Diesel Engine Parts Identification & Operating PRI	2/2	4	120
DPET 1140	Engines I	1/2	3	105
<b>TCA – Diesel Engine Technician Apprentice</b>			<b>10</b>	<b>330</b>
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 1310	Introduction to Power Trains	1/1	2	60
DPET 1320	Transmissions	1/2	3	105
<b>TCA – Drive Train Technician</b>			<b>8</b>	<b>270</b>
DPET 1120	Safety Skills & Introduction to Diesel	1/2	3	105
DPET 1130	Diesel Engine Parts Identification & Operating PRI	2/2	4	120
DPET 1140	Engines I	1/2	3	105
DPET 1240	Diesel Engine Fuel Systems	1/2	3	130
DPET 1210	Basic Diesel Electrical Systems	2/2	4	120
DPET 1231	Diesel Engine Control Systems	1/1	2	60
DPET 1150	General Engine Diagnostics	1/2	3	150
<b>CTS – Diesel Engine Technician</b>			<b>22</b>	<b>790</b>





**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

**TYPE OF PROPOSED CHANGE**

New Program

Curriculum Modification

**AWARD LEVEL(S)**

Award Level(s):

Associate of Applied Science (A.A.S.)

Associate of Science (A.S.)

Associate of Arts (A.A.)

Other Associate Degree

Name: \_\_\_\_\_

Technical Diploma (T.D.)

Technical Competency Area (T.C.A.)

Certificate of Technical Studies (C.T.S.)

Certificate of Applied Science (C.A.S.)

Certificate of General Studies (C.G.S.)

**NAME OF PROGRAM(S) and AWARD LEVEL(S)**

Name: Information Technology

CIP110901

Credit Hours:45

Contact Hours:1690

Award Level:TD

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

Name:

CIP:

Credit Hours:

Contact Hours:

Award Level:

**DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)**

The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.

REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

IMPLEMENTATION DATE (Semester and Year)      Fall 2017

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION

Main Campus       All Campuses       Sites (list below)

Site 1: Shreveport

Site 2:

Site 3

Site 4:

LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education:      Experience: 4 years industry      Certification:

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------

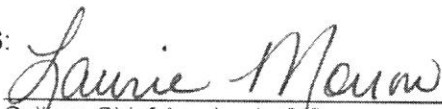
ANTICIPATED ENROLLMENT:					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

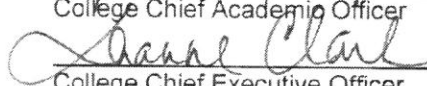
PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Type/Name of Program Accreditation, Licensure or Certification Required:	If YES, please provide projected accreditation/licensure/certification date:

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 College Chief Academic Officer

  
 College Chief Executive Officer

3-20-17  
 Date

3-20-17  
 Date



# Northwest Louisiana Technical College

## Information Technology

### Program Description & Curriculum

This program is divided into a basic core and a specialty networking area. The basic core courses of study will prepare individuals to troubleshoot, repair, and maintain computer systems and basic local area network problems. Students will also learn to operate a computer using current operating system software and use current application software for manipulating spreadsheets, databases, and word processing documents.

### Degrees/Certificates

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 110901

Information Technology CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
ORNT 1000	Freshman Seminar	1/0	1	15
INTE 1100	Installation and Troubleshooting, Part I	1/2	3	90
CPTR 1010	Digital Literacy	1/2	3	90
INTE 1110	Installation and Troubleshooting, Part II	1/2	3	90
<b>TCA – Computer Technician</b>			<b>10</b>	<b>285</b>
<i>The TCA – Computer Technician PLUS the following courses comprise the CTS – Network Administrator</i>				
INTE 1200	Operating Systems	1/2	3	90
INTE 2200	Security Plus	1/2	3	115
INTE 2110	Networking Technologies	1/2	3	180
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>Total ICT Core</b>			<b>21</b>	<b>700</b>
INTE 2010	Introduction to Client/Server Networking	1/2	3	90
INTE 2120	Introduction to Basic Routers	1/2	3	180
<b>CTS – Network Administrator</b>			<b>27</b>	<b>970</b>
INTE 2020	Server Network Infrastructure	1/2	3	90
INTE 2030	Active Directory	1/2	3	90
INTE 2902	Internship	1/2	3	90
INTE 2850	Emerging Technologies	1/2	3	90
INTE 2130	Intermediate Routing and Switching	1/2	3	180
INTE 2140	Wide Area Network Protocols	1/2	3	180
<b>TD – ICT Computer Network Specialist</b>			<b>45</b>	<b>1690</b>
<b>Below are Certificate Exit Levels</b>				
INTE1200	Operating Systems	1/2	3	90
INTE2010	Introduction to Client/Server Networking	1/2	3	90
INTE2020	Server Network Infrastructure	1/2	3	90
INTE2110	Networking Technologies	1/2	3	90
INTE2120	Introduction to Basic Routers	1/2	3	90
<b>TCA – System Administrator</b>			<b>15</b>	<b>450</b>
INTE1100	Installation and Troubleshooting, Part I	1/2	3	90
INTE1110	Installation and Troubleshooting, Part II	1/2	3	90
INTE1200	Operating Systems	1/2	3	90
INTE2110	Networking Technologies	1/2	3	90
INTE2120	Introduction to Basic Routers	1/2	3	90

## Program Description &amp; Curriculum

		<b>TCA – LAN Technician</b>	<b>15</b>	<b>450</b>
ORNT 1000	Freshman Seminar	1/0	1	15
INTE 1100	Installation and Troubleshooting, Part I	1/2	3	90
CPTR 1010	Digital Literacy	1/2	3	90
INTE 1110	Installation and Troubleshooting, Part II	1/2	3	90
		<b>TCA – Computer Technician</b>	<b>10</b>	<b>180</b>
INTE2110	Networking Technologies	1/2	3	180
INTE 2120	Introduction to Basic Routers	1/2	3	180
INTE 2130	Intermediate Routing and Switching	1/2	3	180
INTE 2140	Wide Area Network Protocols	1/2	3	180
		<b>TCA – Wide Area Network Technician</b>	<b>12</b>	<b>720</b>
INTE 1100	Installation and Troubleshooting, Part I	1/2	3	90
INTE 1100	Installation and Troubleshooting, Part II	1/2	3	90
INTE1200	Operating Systems	1/2	3	90
INTE2110	Networking Technologies	1/2	3	180
		<b>TCA – System Support Technician</b>	<b>12</b>	<b>450</b>
INTE 1100	Installation and Troubleshooting, Part I	1/2	3	90
INTE 1100	Installation and Troubleshooting, Part II	1/2	3	90
INTE 2200	Security Plus	1/2	3	90
INTE1200	Operating Systems	1/2	3	90
INTE2010	Introduction to Client/Server Networking	1/2	3	90
INTE2110	Networking Technologies	1/2	3	180
INTE 2120	Introduction to Basic Routers	1/2	3	180
	INTE Computer Elective	1/2	3	90
		<b>CTS – Network Administrator</b>	<b>24</b>	<b>900</b>
INTE 1100	Installation and Troubleshooting, Part I	1/2	3	90
INTE 1100	Installation and Troubleshooting, Part II	1/2	3	90
INTE1200	Operating Systems	1/2	3	90
INTE2010	Introduction to Client/Server Networking	1/2	3	90
INTE2020	Server Network Infrastructure	1/2	3	90
	INTE Computer Elective	1/2	3	90
		<b>CTS – System Analyst</b>	<b>18</b>	<b>540</b>
<i>The following courses may NOT be substituted for the above course requirements.</i>				
INTE2991	Special Projects I	0/1	1	30
INTE2993	Special Projects II	0/2	2	60
INTE2995	Special Projects III	0/3	3	90
INTE2996	Special Projects IV	3/0	3	45
INTE2998	Special Projects V	1/0	1	15
INTE2997	Practicum	0/3	3	135
INTE2999	Cooperative Education	0/3	3	135
CSRV1000	Customer Service	3/0	3	45
KYBD1010	Introductory Keyboarding	3/0	3	45





**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Heavy Construction Vehicle Operator			
CIP: 490202	Credit Hours: 32	Contact Hours: 1205	Award Level: CTS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.



**REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)**

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2017
--	-----------

**SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION**

<input type="checkbox"/> Main Campus	<input type="checkbox"/> All Campuses	<input checked="" type="checkbox"/> Sites (list below)
Site 1: Camp Minden		
Site 2:		
Site 3		
Site 4:		

**LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)**

5 Stars     4 Stars     3 Stars     2 Stars     1 Star

**PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)**

<input checked="" type="checkbox"/> Use Existing Faculty #: _____	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____
--	---	---

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience: 4 years industry	Certification:
------------	------------------------------	----------------

**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five


<b>ANTICIPATED ENROLLMENT:</b>					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

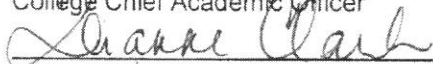
<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer

  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 Date

3-20-17  
 Date



# Northwest Louisiana Technical College

## Heavy Construction Vehicle Operator

### Program Description & Curriculum

The purpose of the Heavy Construction Vehicle Operator (HCVO) program is to prepare individuals for employment as professional heavy equipment operators and tractor-trailer drivers. The HCVO program is a short-term training course designed to prepare students to enter the heavy construction industry. Program content includes instruction in general construction site safety, operation of diesel powered heavy equipment and tractor trailer rigs, identification of common equipment/vehicle components, defensive driving skills, actual driving on rural, urban and interstate highways, cargo handling, tractor trailer backing and maneuvering, documentation and verification of loads and grades and equipment/vehicle inspections and logging.

### Degrees/Certificates

Certificate of Technical Studies (CTS)

Technical Competency Area (TCA)

**CIP 490202**

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

Heavy Construction Vehicle Operator CURRICULUM				
Course #	Course Title	Lecture /Lab Hours	Credit Hours	Clock Hours
HCVO 1000	Introduction to Construction	1/1	2	45
HCVO 1010	Construction Safety	1/2	3	75
HCVO 1011	Forklifts (Certification)	0/1	1	45
JOBS 2450	Job Seeking Skills	2/0	2	30
<b>TCA – NCCER Core Certification</b>			<b>8</b>	<b>195</b>
CTDP 1110	Introduction to Commercial Vehicle Operation	3/0	3	45
CTDP 1120	Federal Motor Carrier Safety Regulations	2/0	2	30
HCVO 1140	Construction Vehicle Inspection and Basic Skills	0/2	2	90
CTDP 1211	Commercial Vehicle Operations I	0/2	2	115
HCVO 1212	Construction Vehicle Operations	0/3	3	160
<b>TCA – Construction Vehicle Operator</b>			<b>12</b>	<b>440</b>
HCVO 1110	Heavy Equipment Orientation and Safety	0/1	1	45
HCVO 1111	Basic Operational Techniques	0/1	1	45
HCVO 1120	Grades Part 1	0/1	1	45
HCVO 1121	Grades Part 2	0/2	2	75
HCVO 1130	Introduction to Earth Moving	1/1	2	75
HCVO 1131	Dump Truck	0/1	1	45
HCVO 1200	Tractors	0/1	1	60
HCVO 1210	Rollers	0/1	1	60
HCVO 1220	Scrapers	0/1	1	60
HCVO 1230	Loaders	0/1	1	60
<b>TCA – Heavy Equipment Operator</b>			<b>12</b>	<b>570</b>
<b>CTS – Heavy Construction Vehicle Operator</b>			<b>32</b>	<b>1205</b>
HCVO 2991	Special Projects I	0/1	1	30
HCVO 2993	Special Projects II	0/2	2	60
HCVO 2995	Special Projects III	0/3	3	90
HCVO 2996	Special Projects IV	3/0	3	45
HCVO 2998	Special Projects V	1/0	1	15





**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Patient Care Technician			
CIP:512601	Credit Hours:24	Contact Hours:900	Award Level:CTS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
<p>The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.</p>

**REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)**

This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.

**IMPLEMENTATION DATE (Semester and Year)** Fall 2017

**SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION**

Main Campus       All Campuses       Sites (list below)

Site 1: Mansfield

Site 5: Natchitoches

Site 2: Minden

Site 3: Sabine Valley

Site 4: Shreveport

**LOUISIANA WORKFORCE COMMISSION STAR LEVEL (<http://www.laworks.net/Stars/>)**

5 Stars       4 Stars       3 Stars       2 Stars       1 Star

**PLAN FOR PROVIDING QUALIFIED FACULTY (Check all that apply)**

Use Existing Faculty       Hire Adjunct Faculty       Hire Full-Time Faculty  
 #: \_\_\_\_\_      #: \_\_\_\_\_      #: \_\_\_\_\_

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:      Experience: 4 years industry      Certification:

**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
----------	----------	----------	------------	-----------	-----------


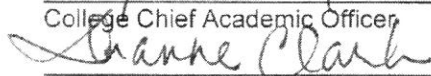
<b>ANTICIPATED ENROLLMENT:</b>					
<u>DAY</u>					
<u>EVENING</u>					
Describe Process for Attaining & Estimating Enrollment:					

<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date:
Type/Name of Program Accreditation, Licensure or Certification Required:	

<b>DESCRIBE IMPLEMENTATION COSTS</b> (Include Faculty, Facilities, Library Resources, etc.)
This change will NOT result in any additional costs to the college.

<b>PROGRAM CURRICULUM (SEE ATTACHED)</b> (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)
---

**SIGNATURES:**

  
 \_\_\_\_\_  
 College Chief Academic Officer  
  
 \_\_\_\_\_  
 College Chief Executive Officer

3-20-17  
 \_\_\_\_\_  
 Date  
 3-20-17  
 \_\_\_\_\_  
 Date



# Northwest Louisiana Technical College

## Patient Care Technician (PCT)

### Program Description & Curriculum

This program prepares individuals for a variety of job opportunities in the health occupations areas and is generated to meet the need for cross training of employees in health care facilities. Graduates may find employment in long-term care facilities, hospitals, laboratories, and clinics where basic bedside nursing skills are required, as well as the skills of phlebotomy, performing electrocardiograms (EKG), stress testing, and other monitoring procedures.

### Degrees/Certificates

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 512601**

Patient Care Technician CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
HNUR 1211	Nursing Fundamentals I	3/1	4	75
HCOR 1212	Skills Application	0/1	1	80
<b>TCA – Nurse Assistant</b>			<b>5</b>	<b>155</b>
CPTR 1000	Introduction to Computers	1/1	2	45
HCOR 1200	Introduction to Anatomy & Physiology (with medical terminology)	3/0	3	130
HEKG 1113	EKG	2/0	2	160
<b>TCA – EKG Skills</b>			<b>7</b>	<b>335</b>
HCOR 1601	Communication Techniques in Healthcare	2/1	3	130
HPHL 1013	Phlebotomy	3/1	4	280
HCOR 1801	Professional Aspects for Healthcare Providers	1/1	2	130
<b>TCA – Phlebotomy Skills</b>			<b>9</b>	<b>540</b>
BOTH 1210	Administrative Procedures for Medical Offices	3/0	3	45
<b>CTS – Patient Care Technician</b>			<b>24</b>	<b>900</b>
<i>Optional Electives – may not be substituted for required courses above</i>				
CSRV 1000	Customer Service	3/0	3	45
CSRV 2000	Customer Service and Sales	3/0	3	45
ENTP 1000	Foundations of Entrepreneurship	3/0	3	45
HCOR 2991	Special Projects I	0/1	1	30
HCOR 2993	Special Projects II	0/2	2	60
HCOR 2995	Special Projects III	0/3	3	90
HCOR 2996	Special Projects IV	3/0	3	45
HCOR 2997	Special Projects V	1/0	1	15
<i>*Qualified students may enroll in the following elective courses based on COMPASS or ACT scores.</i>				
AHSC 1000	Allied Health Science	2/1	3	60
AHMA 1000	Allied Health Math	2/1	3	60
AHRE 1000	Allied Health Reading	2/1	3	60
AHEN 1000	Allied Health English	2/1	3	60



**LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE  
SYSTEM**

**New Program and Curriculum Modification Form**

<b>TYPE OF PROPOSED CHANGE</b>	
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification

<b>AWARD LEVEL(S)</b>	
Award Level(s): <input type="checkbox"/> Associate of Applied Science (A.A.S.) <input type="checkbox"/> Associate of Science (A.S.) <input type="checkbox"/> Associate of Arts (A.A.) <input type="checkbox"/> Other Associate Degree Name: _____	<input type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Technical Competency Area (T.C.A.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.) <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)

<b>NAME OF PROGRAM(S) and AWARD LEVEL(S)</b>			
Name: Heavy Construction Vehicle Operator			
CIP: 490202	Credit Hours: 32	Contact Hours: 1205	Award Level: CTS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

<b>DESCRIBE THE PROPOSED CHANGE (For Curriculum Modifications, state previous credit and clock hours, and for Program Termination, state program and all award levels.)</b>
The proposed change is strictly an increase in clock hours. This increase will allow students more time with hands on projects and will produce more experienced and seasoned employees.

<p><b>REASON/JUSTIFICATION FOR THE PROPOSED CHANGE (Include support such as four-year university agreements, industry demand, advisory board information, etc.)</b></p> <p>This change was encouraged by business and industry in order to meet the requirement for the USDOE of a 37.5 to 1 clock to credit hour ratio in determining program eligibility for Title IV federal funds. Our stakeholders realize the importance of this financial assistance for our students and wish to eliminate any barriers to such aid. This increase in clock hours will provide students more hands on opportunities as well as ensure this program is eligible for federal funding.</p>
---

<p><b>IMPLEMENTATION DATE (Semester and Year)</b></p>	<p>Fall 2017</p>
---	------------------