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265 South Foster Drive  
Baton Rouge, LA 70806

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

[www.lctcs.edu](http://www.lctcs.edu)

**LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM**

**TO:** Dr. Monty Sullivan  
LCTCS President

**THROUGH:** Dr. René Cintrón *RC*  
Chief Academic Affairs Officer

**FROM:** Dr. Adrienne Fontenot  
Director of Adult Learning and Educational Programs

**SUBJECT:** Program Revisions at Northwest Louisiana Technical Community  
College (NWLTC)

**DATE:** 03/26/2018

**FOR BOARD ACTION:**

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

**Program Additions**

1. Certificate of Technical Studies (CTS) in Barber Shop Customer Service (CIP 12.0402) – **3 STARS**
2. Certificate of Technical Studies (CTS) in Entry Level Prep Cook (CIP 12.0503) – **5 STARS**
3. Certificate of Technical Studies (CTS) in Heavy Equipment Operations – Level II (CIP 49.0202) – **4 STARS**
  - a. Career and Technical Certificate (CTC) in Heavy Equipment Operations – Level I (CIP 49.0202) – **4 STARS**
4. Certificate of Technical Studies (CTS) in HVAC Helper – Level I (CIP 47.0201) – **4 STARS**
5. Certificate of Technical Studies (CTS) in Maintenance Helper (CIP 47.0303) – **5 STARS**
  - a. Career and Technical Certificate (CTC) in Electrical Raceway – Conduit Technician (CIP 47.0303) – **5 STARS**
6. Certificate of Technical Studies (CTS) in Machinist Helper (CIP 15.0613) – **5 STARS**
7. Career and Technical Certificate (CTC) in Nursing Assistant (51.2601) – **5 STARS**
8. Certificate of Technical Studies (CTS) in Installation Technician – Level I (15.0404) – **5 STARS**
  - a. Career and Technical Certificate (CTC) in Industrial Helper (15.0404) – **5 STARS**

**APPROVED**

*slk* 4-11-18  
LCTCS BOARD OF SUPERVISORS



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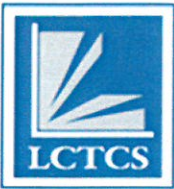
9. Certificate of Technical Studies (CTS) in Installation Technician – Level II (15.0404) – **5 Stars**
10. Certificate of Technical Studies (CTS) in Installation Technician – Level III (15.0404) – **5 Stars**

**Program Revisions**

11. Technical Diploma (TD) in Barber Styling (CIP 12.0402) – **3 STARS**
12. Associate of Applied Science (AAS) in Culinary Arts (formerly Culinary Arts and Occupations) (CIP 12.0503) – **4 STARS**
  - a. Technical Diploma (TD) in Culinary Arts (formerly Culinary Arts and Occupations) (CIP 12.0503) – **4 STARS**
  - b. Certificate of Technical Studies (CTS) in Production Cook (CIP 12.0503) – **4 STARS**
13. Certificate of Technical Studies (CTS) in Heavy Construction Vehicle Operator (CIP 49.0202) – **4 STARS**
14. Technical Diploma (TD) in Residential A/C & Refrigeration Technician (CIP 47.0201) – **4 STARS**
  - a. Certificate of Technical Studies (CTS) in HVAC Helper II to HVAC Helper – Level II (CIP 47.0201) – **4 STARS**
15. Technical Diploma (TD) in Industrial Maintenance Technology (CIP 15.0613) – **5 STARS**
  - a. Certificate of Technical Studies (CTS) in CNC Operator (CIP 15.0613) – **5 STARS**
  - b. Certificate of Technical Studies (CTS) in Pneumatic / Hydraulic Apprentice (CIP 47.0303) – **5 STARS**
16. Technical Diploma (TD) in Industrial Manufacturing Technology - Machine Tools Technology Concentration (CIP15.0613) – **5 STARS**
17. Certificate of Technical Studies (CTS) in Patient Care Technician (51.5601) **5 STARS**
18. Applied Associate of Science (AAS) in Industrial Instrumentation and Electrical Technician (15.0404) – **5 STARS**
  - a. Technical Diploma (TD): Industrial Instrumentation & Electrical Technician (15.0404) – **5 STARS**

**Program Terminations**

1. Technical Diploma (TD) in Commercial Refrigeration Technician (CIP 47.0201) – **4 STARS**
2. Technical Diploma (TD) in Commercial Air Conditioning Technician (CIP 47.0201) – **4 STARS**
3. Certificate of Technical Studies (CTS) – HACR Energy Systems Technician (CIP 47.0201) – **4 STARS**
4. Technical Competency Area (TCA) – Entry Level Prep Cook III (CIP 12.0503) – **4 STARS**
5. Technical Competency Area (TCA) - NCCER Core Certification (CIP 15.0613) – **5 STARS**
6. Technical Competency Area (TCA) – Construction Vehicle Operator (CIP 49.0202) – **4 STARS**



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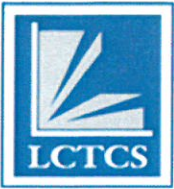
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7. Technical Competency Area (TCA) – Heavy Equipment Operator(CIP 49.0202) – **4 STARS**
8. Technical Competency Area (TCA) - Solar System Installer (CIP 47.0201) – **4 STARS**
9. Technical Competency Area (TCA) – HVAC Helper I (CIP 47.0201) – **4 STARS**
10. Technical Competency Area (TCA) – Welder Helper (CIP 15.0613) – **5 STARS**
11. Technical Competency Area (TCA) – Fabrication Apprentice (CIP 15.0613) – **5 STARS**
12. Technical Competency Area (TCA) – Electrical Helper (CIP 15.0613) – **5 STARS**
13. Technical Competency Area (TCA) – Pneumatic Helper (CIP 15.0613) – **5 STARS**
14. Technical Competency Area (TCA) – Hydraulic Helper (CIP 15.0613) – **5 STARS**
15. Technical Competency Area (TCA) – Millwright Helper (CIP 15.0613) – **5 STARS**
16. Certificate of Technical Studies (CTS) – Millwright Apprentice (CIP 15.0613) – **5 STARS**
17. Certificate of Technical Studies (CTS) – Certification for Manufacturing (C4M) (CIP15.0613) – **5 STARS**
18. Certificate of Technical Studies (CTS) – Industrial Electronic Technician (CIP 15.0613) – **5 STARS**
19. Certificate of Technical Studies (CTS) – Millwright Apprentice (CIP 15.0613)
20. Technical Diploma (TD) – Industrial Manufacturing Technology – Automation and Controls Concentration (CIP15.0613) – **5 STARS**
21. Technical Diploma (TD) - Industrial Manufacturing Technology – Millwright Concentration (CIP15.0613) – **5 STARS**
22. Certificate of Technical Studies (CTS) - Instrumentation / Electrical Technician (15.0404) – **5 STARS**
23. Technical Diploma (TD) – Industrial Manufacturing Technology – Industrial Instrumentation & Electrical Technician Concentration (15.0404) – **5 STARS**
24. Certificate of Technical Studies (CTS) – Instrumentation / Electrical Technician (15.0404) – **5 STARS**
25. Certificate of Technical Studies (CTS) - Advanced Manufacturing Technician (CIP15.0613) – **5 STARS**
26. Technical Competency Area (TCA) – Nurse Assistant (51.2601) – **5 STARS**
27. Technical Competency Area (TCA) – EKG Skills (51.2601) – **5 STARS**
28. Technical Competency Area (TCA) – Phlebotomy Skills (51.2601) – **5 STARS**
29. Technical Competency Area (TCA) – Electrician Helper (15.0404) – **5 STARS**
30. Technical Competency Area (TCA) – Electronic Repair (15.0404) – **5 STARS**



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31. Certificate of Technical Studies (CTS) – E/I Helper (15.0404) – 5  
STARS

**Background:** NWLTC faculty and staff are reviewing all programs.

NWLTC is requesting to revise the existing:

- The Barber Styling Program was revised including the TD: Barber Styling by revising semester credit hours and contact hours. With this change comes the addition of a CTS named Barber Shop Customer Service to provide an exit point and an Industry Based Credential from the Louisiana Board of Barbers Examiners – Barber license.
- The Culinary Arts and Occupations Program was renamed to Culinary Arts and its awards revised including the CTS in Production Cook, and a new CTS in Entry Level Prep Cook was added. The Technical Diploma and AAS were renamed and the semester credit hours and contact hours were revised. The single TCA is being eliminated. ServSafe (IBC) from the National Restaurant Association
- Heavy Construction and Vehicle Operator Program revised its awards including CTS: Heavy Construction Vehicle Operator changing semester credit hours and contact hours. With this change comes the removal of several TCAs and a CTS. IBC's from NCCER Safety Core, OSHA 10, Safety Awareness Training (TappiSafe), NCCER Level I & Level II and CDL from Louisiana Office of Motor Vehicles, License Bureau.
- Air Conditioning and Refrigeration Technician Program awards were modified including the CTS: HVAC Helper II by renaming it HVAC Helper – Level I and renaming existing CTS: HVAC Helper II to CTS: HVAC Helper – Level II. Both Level I and Level II are the same (CTS) level award but they are stacked and sequential with increasing level of proficiency. Students must complete I to be eligible for Level II. With this change comes the removal of several TCAs, a CTS and 2 TD's. IBC's include NCCER Safety Core, OSHA 10, and Safety Awareness Training (TappiSafe).
- Industrial Maintenance Technology program to tightly focus the program and student learning outcomes. This will include the elimination of multiple TCA's and a CTS. In addition, the semester credit hours and contact (clock) hours for the remaining awards were revised including 1 CTS and 1 Technical Diploma. Two (2) new CTS's were added. IBC's include NCCER Safety Core, OSHA 10, and Safety Awareness Training (TappiSafe).



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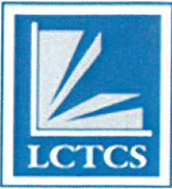
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- Industrial Manufacturing Program renamed to Advanced Manufacturing Program to be more representative and tightly focus the program and student learning outcomes on advanced manufacturing. This will include the elimination of multiple TCA's, CTS' and TD's. In addition, the semester credit hours and contact (clock) hours for the remaining awards were revised including a CTS and a Technical Diploma. One new CTS is being added. IBC's include NCCER Safety Core, OSHA 10, Safety Awareness Training (TappiSafe) and National Institute of Metalworking Skills – Level I.
- Practical Care Technician program will create greater flexibility and opportunity for completion with these changes including the removal of several TCAs, revisions to the existing CTS and the addition of 1 CTC. IBC's include Certified Nursing Assistant from Louisiana Nurse Aide Registry in BR-Dept of Health and Hospitals, CPR – American Heart Association, and Phlebotomy from American Society of Clinical Pathology/American Society of Clinical Technicians.
- Industrial Instrumentation Technology Program renamed to Industrial Instrumentation and Electrical Technology program and integrates both Instrumentation and Electrical student learning outcomes. Both the TD and the AAS are renamed to reflect this change. In addition, the change also includes the removal of several 2 TCAs, 1 new CTC, 3 new CTS's and the renaming of both the TD and AAS. IBC's include NCCER Safety Core, OSHA 10, and Safety Awareness Training (TappiSafe), NCCER Level I, II, III and IV.

Currently the programs are difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

These requests are based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission.

**Fiscal Impact:** No additional cost will be incurred as a result of these revisions. The effects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.



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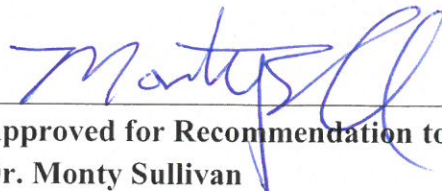
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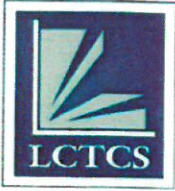
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**History of Prior Actions:** There is a history of revising programs to meet student and workforce needs.

**Benefits to the System:** The program revisions will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth.

  
Approved for Recommendation to the Board  
Dr. Monty Sullivan

4/11/18  
Date



# LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

## Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: Patient Care Technician		

<b>AWARD LEVEL(S)</b>	
<p>For Board of Regents and LCTCS Review:</p> <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	<p>For LCTCS Review:</p> <input type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Patient Care Technician			
CIP: 51.2601	Credit Hours: 29	Contact Hours: 890	Award Level: C.T.S.
Name: Nursing Assistant			
CIP: 51.2601	Credit Hours: 15	Contact Hours: 455	Award Level: CTC
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:.

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded
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Certified Nursing Assistant(CNA)	Department of Health and Hospitals	Nursing Fundamentals I	HNUR	1211	3
			HCOR	1212	2
CPR	American Heart Assn	Nursing Fundamentals I	HNUR	1211	3
Phlebotomy Technician	American Society of Clinical Pathology or American Society of Phlebotomy Technicians	Phlebotomy Phlebotomy Clinical	HPHL	1013	4
			HPHL	1023	3

### PROPOSED CHANGE

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

#### Program Revisions:

1. New CTC: Nursing Assistant (51.2601) **2 Stars**  
15 SCH – clock hours 455 – IBC: Certified Nursing Assistant & CPR (American Hear Assn)
2. CTS: Patient Care Technician (51.5601) **4 Stars**  
Revise to 29 SCH – 890 clock hours IBC: Phlebotomy (American Society of Clinical Pathology or American Society of Phlebotomy Technicians)

#### Program Terminations

1. Technical Competency Area (TCA) – Nurse Assistant
2. Technical Competency Area (TCA) – EKG Skills
3. Technical Competency Area (TCA) – Phlebotomy Skills

NWLTC faculty and staff are reviewing all programs. With this change comes the removal of several TCAs, revisions to the existing CTS and the addition of 1 CTC. Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

Proposed Curriculum Revisions: **See Attached Curriculum Revisions**



COURSE NAME	Lecture		Laboratory		Work-Based		Course Totals	
	Clock	Credit	Clock	Credit	Clock	Credit	Clock	Credit
<b>TOTAL ALL COLUMNS</b>								

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018
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**HISTORY OF PRIOR ACTIONS**  
 Provide an overview of changes to this program.

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

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

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways

with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

5 Stars    
  4 Stars    
  3 Stars    
  2 Stars    
  1 Star

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

<input type="checkbox"/> Main Campus	<input checked="" type="checkbox"/> All Campuses	<input type="checkbox"/> Sites (list below)	<input type="checkbox"/> Distance Education
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Site 1: Shreveport Campus - Shreveport, LA  
 Site 2: Mansfield Campus – Mansfield, LA  
 Site 3: Minden Campus – Minden, LA (Main Campus)  
 Site 4:

**QUALIFIED FACULTY** (Check all that apply)

<input type="checkbox"/> Use Existing Faculty #: <u>1 full-time, 3 part-time</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____
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**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience:	Certification:
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<p><b>Education:</b></p> <ol style="list-style-type: none"> <li>1. Must be a licensed practical nurse or registered nurse.</li> </ol>	<p><b>Experience:</b> Documented work experience directly related to the course(s) being taught</p> <ol style="list-style-type: none"> <li>1. Minimum of three years of nursing experience. And</li> <li>2. At least one year of nursing experience must have been as a medical-surgical nurse providing direct patient care. And</li> <li>3. The applicant must have practiced as a nurse for a minimum of six full-time months during the three years immediately preceding application.</li> </ol>	<p><b>Certification:</b> Professional, nationally recognized, achievement-based certification OR Licensure in the course(s) being taught</p> <ol style="list-style-type: none"> <li>4. Must be a licensed practical nurse or registered nurse And</li> <li>5. must possess a valid, unencumbered license to practice as a Registered Nurse in the State of Louisiana</li> </ol>
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**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Healthcare Occupations

**Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.**

The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

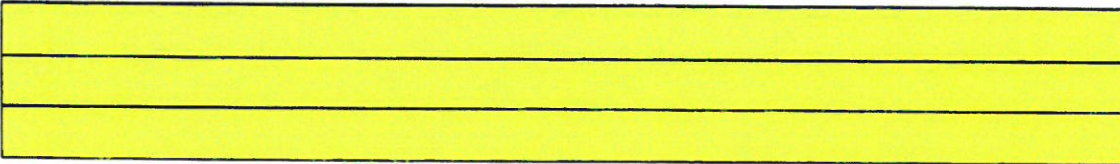
**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>120</u>	<u>126</u>	<u>132</u>	<u>146</u>	<u>160</u>
<u>EVENING</u>	<u>30</u>	<u>33</u>	<u>38</u>	<u>43</u>	<u>50</u>

<b>ANTICIPATED ENROLLMENT:</b>					
<u>DISTANCE</u> <u>EDUCATION</u>					
Describe Process for Attaining & Estimating Enrollment:	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>				

<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>
Type/Name of Program Accreditation, Licensure or Certification Required:	Department of Health and Hospitals & Council on Occupational Education

<b>PROGRAM CURRICULUM</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)						
<b>See Attached Proposed Curriculum</b>						
Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours



**BENEFITS TO THE SYSTEM**

**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

**NWLTC Patient Care Technician Program**  
**Proposed PCT Program Curriculum Revision**  
**Effective 2018-2019**  
**CIP: 51.2601**

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
<b>1st Semester</b>								
8Wk	LEAD	1003	Work Readiness (H)	3	2	2	90	
	CPTR	1002	Introduction to Computers (H)	3	2	2	90	
	HNUR	1211	Nursing Fundamentals I	3	3	1	75	
8Wk	HCOR	1212	Skills Application	2	0	2	80	
	HCOR	1200	Introduction to Anatomy & Physiology (Med Term)	2	2	1	60	
	BOTH	1210	Administrative Procedures for Medical Office	2	2	1	60	
				<b>15</b>	<b>11</b>	<b>9</b>	<b>455</b>	<b>IBC: Certified Nursing Assistant (CNA) - Department of Health and Hospitals &amp; Cardio Pulmonary Resuscitation (CPR) - American Heart Assn</b>
<b>1st Semester Totals</b>				<b>15</b>	<b>11</b>	<b>9</b>	<b>455</b>	
<b>2nd Semester</b>								
8Wk	HPHL	1013	Phlebotomy	4	2	3	120	
	HEKG	1113	EKG	2	2	1	60	
	HCOR	1601	Communication Techniques in Healthcare	2	2	1	60	
8Wk	HPHL	1023	Plebotomy Clinical	3	1	3	105	
	HEKG	1123	EKG Clinical	1	0	1	30	
	HCOR	1801	Professional Aspects for Healthcare Providers	2	2	1	60	
				<b>14</b>	<b>9</b>	<b>10</b>	<b>435</b>	<b>IBC: Phlebotomy - American Society of Clinical Pathology or American Society of Phlebotomy Technicians</b>
<b>2nd Semester Total</b>				<b>14</b>	<b>9</b>	<b>10</b>	<b>435</b>	
<b>Award (2 Semesters)</b>				<b>29</b>	<b>20</b>	<b>19</b>	<b>890</b>	

# Proposed Curriculum Revisions

## 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 (TC)

Technical Competency (TC)

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

CIP 512601

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

- Added: *career and technical certificate*
- ◆ Certificate of Technical Competency (CTC): Nursing Assistant
  - ◆ Revised existing CTS
  - ◆ Terminated TCA's

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>TC - Nursing Assistant - 3 *</b>				
CPTR 1000	Introduction to Computers	1/1	2	45
HCOR 1200	Introduction to Anatomy & Physiology (with medical terminology)	3/0	3	45
HEKG 1113	EKG	2/0	2	160
<b>TC - EKG Skills - 7 *</b>				
HCOR 1601	Communication Techniques in Healthcare	2/1	3	60
HPHL 1013	Phlebotomy	3/1	4	280
HCOR 1801	Professional Aspects for Healthcare Providers	1/1	2	110
<b>TC - Phlebotomy Skills - 9 *</b>				
BOTH 1210	Administrative Procedures for Medical Offices	3/0	3	45
<b>CTS - Patient Care Technician - 24</b>				
<b>Deleted Courses</b>				
CONV 1000	Customer Service	3/0	3	45
ENTP 1000	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
<b>Deleted Courses</b>				
ALHS 1000	Allied Health Science	2/1	3	60
ALHS 1000	Allied Health Math	2/1	3	60
ALHS 1000	Allied Health Reading	2/1	3	60
ALHS 1000	Allied Health English	2/1	3	60

#### Terminated TCA's:

- 1) Nurse Assistant
- 2) EKG Skills
- 3) Phlebotomy Skills

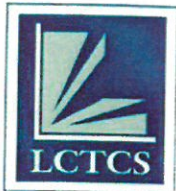
#### Revised: CTS: Patient Care Technician

29 SCH—890 clock hours

#### \* Added New CTC: Nursing Assistant

15 SCH—455 clock hours

\* Work-based Learning Experience courses may be substituted for a course with in this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Barber Styling</b>		

<b>AWARD LEVEL(S)</b>	
<p>For Board of Regents and LCTCS Review:</p> <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	<p>For LCTCS Review:</p> <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Barber Shop Customer Service			
CIP: 12.0402	Credit Hours: 30	Contact Hours: 960	Award Level: New CTS
Name: Barber Styling			
CIP: 12.0402	Credit Hours: 45	Contact Hours: 1500	Award Level: TD
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded



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**PROPOSED CHANGE**

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

**Program Revisions:**

1. New CTS: Barber Shop Customer Service (12.0402) **3 Stars**  
30 SCH – clock hours 960
2. TD: Barber Styling (412.0402) **3 Stars**  
revised to 45 SCH – 1500 clock hours

**Program Terminations**

1. NA

NWLTC faculty and staff are reviewing all programs. NWLTC is requesting to revise the existing TD: Barber Styling by revising semester credit hours and contact hours. With this change comes the addition of a CTS named Barber Shop Customer Service to provide an exit point and an Industry Based Credential. Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

Proposed Curriculum Revisions: **See Attached Curriculum Revisions**

COURSE NAME	Lecture		Laboratory		Work-Based		Course Totals	
	Clock	Credit	Clock	Credit	Clock	Credit	Clock	Credit
<b>TOTAL ALL COLUMNS</b>								

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018

<p><b>HISTORY OF PRIOR ACTIONS</b> Provide an overview of changes to this program.</p> <p>This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.</p>
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<p><b>JUSTIFICATION FOR THE PROPOSED CHANGE</b> Include support such as four-year university agreements, industry demand, advisory board information, etc.</p> <p>This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.</p>
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**LOUISIANA WORKFORCE COMMISSION STAR LEVEL** (<http://www.laworks.net/Stars/>)

5 Stars     
 4 Stars     
 3 Stars     
 2 Stars     
 1 Star

<b>SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION</b>			
<input type="checkbox"/> Main Campus	<input type="checkbox"/> All Campuses	<input checked="" type="checkbox"/> Sites (list below)	<input type="checkbox"/> Distance Education

Site 1: Shreveport Campus - Shreveport, LA

**QUALIFIED FACULTY** (Check all that apply)

<input type="checkbox"/> Use Existing Faculty #: <u>1 full-time, 0 part-time</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____
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**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience:	Certification:
<p><b>Education:</b></p> <p>Associates Degree minimum or equivalent college coursework</p>	<p><b>Experience:</b> Documented work experience directly related to the course(s) being taught</p> <p>Minimum of four years of related experience</p>	<p><b>Certification:</b> Professional, nationally recognized, achievement-based certification OR</p> <p>Licensure in the course(s) being taught</p> <p>Must possess a Louisiana Barber/Styling Instructor License</p>

**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Business & Hospitality
<b>Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.</b>
The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

ANTICIPATED ENROLLMENT:					
Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>31</u>	<u>33</u>	<u>36</u>	<u>45</u>	<u>60</u>
<u>EVENING</u>			<u>15</u>	<u>20</u>	<u>25</u>
<u>DISTANCE EDUCATION</u>					
Describe Process for Attaining & Estimating Enrollment:	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Evening track will begin in the 2<sup>nd</sup> or 3<sup>rd</sup> year. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>				

<b>PROGRAM ACCREDITATION:</b>	
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

<b>Is Program Accreditation, Licensure or Certification Required?</b>	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>
<b>Type/Name of Program Accreditation, Licensure or Certification Required:</b>	Louisiana State Board of Barbering

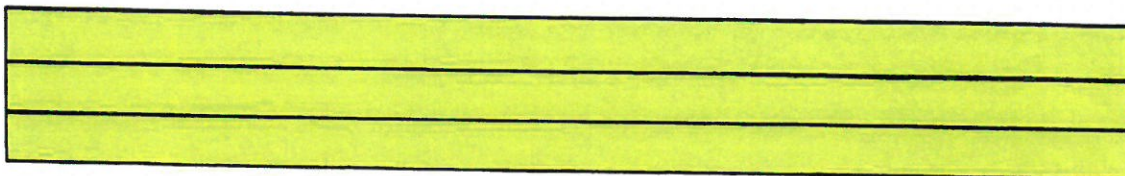
**PROGRAM CURRICULUM**  
 (Use the template below or insert separate attachment; all modifications should include the OLD and NEW curriculum with changes appropriately noted so that it is visually clear what has been added, deleted and/or changed)

**See Attached Proposed Curriculum**

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours

**BENEFITS TO THE SYSTEM**

Discuss how this change will benefit your students, your community, and the LCTCS.



**BENEFITS TO THE SYSTEM**

**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

NWLTC Barber Styling Program  
 Proposed Program Curriculum Revision  
 Effective 2018-2019

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
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1st Semester								
8WK	LEAD	1003	Career & Student Success (H)	3	2	2	90	
	C/PT	1002	Computer Literacy and Applications (H)	3	2	2	90	
	BARB	1013	History of Barbering	2	2	1	60	
8WK	BARB	1023	Sanitation and Safety	3	1	3	105	
	BARB	1033	Customer Service & Professional Image	3	2	2	90	
	BARB	1160	Basic Styling - Men & Women	2	2	1	60	
<b>1st Semester Totals</b>				<b>16</b>	<b>11</b>	<b>11</b>	<b>495</b>	

2nd Semester								
8WK	BARB	1220	Shaving Theory & Practice	1	1	1	45	
	BARB	1211	Barber Styling Lab I	4	1	5	135	
	BARB	1350	Barbering Chemistry	1	0	1	30	
8WK	BARB	1243	Skin, Scalp & Hair Treatments: Theory and Practice	4	2	3	120	
	BARB	1231	Barber Styling Lab II	3	2	2	90	
	BARB	1420	Anatomy and Physiology	1	1	1	45	
<b>2nd Semester Total</b>				<b>14</b>	<b>7</b>	<b>13</b>	<b>465</b>	

Award (2 Semesters)								
CTIS: Barber Shop Customer Service				30	18	24	960	IBC: Customer Service

3rd Semester								
8WK	BARB	2013	Chemical & Permanent Hair Treatment	4	2	4	150	
	BARB	1430	Men's Hairpieces	1	0	1	30	
	BARB	2410	Barber Styling Entrepreneurship & Professionalism	1	2	0	30	
8WK	BARB	2043	Hair Coloring Theory & Practice	4	2	3	120	
	BARB	2053	LA State Board Review Theory & Practice	4	1	5	165	
	BARB	2111	Barber Styling Shop Management & Sales	1	1	1	45	
<b>3rd Semester Totals</b>				<b>15</b>	<b>8</b>	<b>14</b>	<b>540</b>	

Award (3 Semesters)								
Technical Diploma - Barber Styling				45	26	38	1500	

## Proposed Curriculum Revisions

### Added:

- ◆ New CTS: Barber Shop Customer Service (12.0402) 3 Stars — 30SCH — clock hours 960

### Revised:

- ◆ TD: Barber Styling (412.0402) 3 Stars—revised to 45 SCH – 1500 clock hours

### Deleted Courses

Courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced —Numbering Convention details attached.

## Northwest Louisiana Technical College

### Barber-Styling

#### Program Description & Curriculum

This program is designed to prepare students to work efficiently in the industry of Barber-Styling. This competency-based program includes classroom instruction and practical/lab experience under supervision of the instructor. Practical skills are developed through experience in a school-based, on-site shop which is equipped and managed according to industry standards by the students with instructor supervision. Upon completion, students are eligible to take the LA State Board of Barber Examiners licensure examination.

#### Degrees/Certificates Technical Diploma (TD)

Available degrees and certificates may vary at each campus. Check with your local campus for more information.  
CIP 120402

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
ORNT 1000	Freshman Seminar	1/0	1	15
BARB 1110	History of Barbering and the Professional Image	2/0	2	30
CPTN 1000	Introduction to Computers	1/1	2	45
BARB 1120	Sanitation, Bacteriology, Safety with Tools, Implements, and Equipment Theory and Practice	0/2	2	60
BARB 1131	Sanitation, Bacteriology, Safety with Tools, Implements, and Equipment Lab	0/1	1	30
BARB 1160	Men's/Women's Basic Haircutting/Styling Theory & Practice	0/2	2	60
BARB 1220	Shaving, Mustaches, and Beards Theory & Practice	0/1	1	30
BARB 1211	Barber-Styling Lab 1	0/4	4	180
BARB 1410	Electricity and Safety	1/0	1	15
BARB 1140	Facial Massage and Treatments Theory & Practice	0/2	2	60
BARB 1150	Properties/Disorders/Treatments of Skin, Scalp, & Hair Theory and Practice	0/2	2	60
BARB 1231	Barber-Styling Lab II	0/2	2	90
BARB 1310	Permanent Waving/Chemical Hair Relaxing Theory & Practice	0/3	3	90
BARB 1321	Permanent Waving/Chemical Hair Relaxing Lab	0/2	2	60
BARB 1350	Chemistry	2/0	2	30
BARB 1420	Anatomy and Physiology	1/1	2	45
BARB 1430	Men's Hairpieces Theory	0/1	1	30
BARB 1441	Barber-Styling Lab III	0/5	5	225
BARB 2630	Professionalism for Barber Styling	1/0	1	15
BARB 1330	Hair Coloring Theory and Practice	0/2	2	60
BARB 1341	Hair Coloring Lab	0/2	2	60
BARB 2111	Barber-Styling Shop Management and Sales	0/2	2	60
BARB 2120	LA State Barber Board Review Theory	3/0	3	45
BARB 2131	LA State Barber Board Review Lab	0/4	4	180
JOBS 2450	Job Seeking Skills	2/0	2	30

Revised March 2014

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.



## Proposed Curriculum Revisions

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

PAGE 2

BARBER-STYLING

Program Description & Curriculum

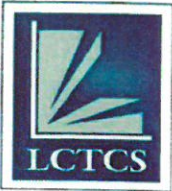
Course	Prerequisites	Credits	Clock Hours
<del>CSRV 2000</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<del>CSRV 2000</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<del>CSRV 2000</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<i>With approval from the City Program Committee, the following courses may be substituted for any of the above courses:</i>			
BARB 2991	0/1	1	30
BARB 2993	0/2	2	60
BARB 2995	0/3	3	90
BARB 2996	3/0	3	45
BARB 2997	0/3	3	45
BARB 2999	0/3	3	45

Revised

- Added:
- ◆ New CTC: Barber Shop Customer Service (12.0402) 3 Stars
  - ◆ 30 SCH – clock hours 960

Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced — Numbering Convention details attached.



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Advanced Manufacturing Technology (formerly Industrial Manufacturing Technology)</b>		

<b>AWARD LEVEL(S)</b>	
For Board of Regents and LCTCS Review: <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	For LCTCS Review: <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Machinist Helper			
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CIP: 15.0613	Credit Hours: 15	Contact Hours: 450	Award Level: New CTS
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Name: CNC Operator			
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CIP: 15.0613	Credit Hours: 33	Contact Hours: 990	Award Level: CTS
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Name: Advanced Manufacturing Technology (formerly Industrial Manufacturing Technology)			
--	--	--	--

CIP: 15.0613	Credit Hours: 45	Contact Hours: 1350	Award Level: TD
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Name:			
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CIP:	Credit Hours:	Contact Hours:	Award Level:
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IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded

NCCER Safety Core	NCCER	Industrial Workplace Safety	WKSF	1003	3
OSHA 10	OSHA	Industrial Workplace Safety	WKSF	1003	3
TappeSafe	TappeSafe	Industrial Workplace Safety	WKSF	1003	3
NIMS Certification	National Institute of Metalworking Skills	CNC II	IMFG	1263	3

**PROPOSED CHANGE**

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

**Program Revisions:**

1. New CTS: Machinist Helper (15.0613) 5 Stars  
15 SCH – clock hours 450
2. CTS: CNC Operator (15.0613) 5 Star  
Revised to 33 SCH – 990 clock hours
3. TD: Industrial Manufacturing Technology Machine Tools Technology Concentration (15.0613) 5 Star - renamed Advanced Manufacturing Technology - revised to 45 SCH – 1350 clock hours

**Program Terminations**

1. CTS – Certification for Manufacturing (C4M)
2. CTS – Industrial Electronic Technician
3. CTS – Millwright Apprentice
4. TD – Industrial Manufacturing Technology – Automation and Controls Concentration
5. TD - Industrial Manufacturing Technology – Millwright Concentration
6. CTS Instrumentation / Electrical Technician
7. TD – Industrial Manufacturing Technology – Industrial Instrumentation & Electrical Technician Concentration
8. CTS – Instrumentation / Electrical Technician
9. CTS - Advanced Manufacturing Technician

NWLTC faculty and staff are reviewing all programs. NWLTC is requesting to revise the existing Industrial Manufacturing Program to tightly focus the program and student

learning outcomes on advanced manufacturing. This will include the elimination of multiple TCA's, CTS' and TD's. In addition, the semester credit hours and clock hours for the remaining awards were revised including 1 CTS and 1 Technical Diploma. One new CTS is being added.

Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

Proposed Curriculum Revisions: **See Attached Curriculum Revisions**

COURSE NAME	Lecture		Laboratory		Work-Based		Course Totals	
	Clock	Credit	Clock	Credit	Clock	Credit	Clock	Credit
<b>TOTAL ALL COLUMNS</b>								

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

**IMPLEMENTATION DATE (Semester and Year)**      Fall 2018

**HISTORY OF PRIOR ACTIONS**  
Provide an overview of changes to this program.

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

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

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

- 5 Stars    
  4 Stars    
  3 Stars    
  2 Stars    
  1 Star

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

- |   |                                       |  |   |
|---|---------------------------------------|--|---|
| <input checked="" type="checkbox"/> Main Campus | <input type="checkbox"/> All Campuses | <input checked="" type="checkbox"/> Sites (list below) | <input type="checkbox"/> Distance Education |
|---|---------------------------------------|--|---|

Site 1: Minden Campus – Minden, LA

**QUALIFIED FACULTY (Check all that apply)**

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Use Existing Faculty<br>#: <u>1 full-time, 0 part-time</u> | <input type="checkbox"/> Hire Adjunct Faculty<br>#: _____ | <input type="checkbox"/> Hire Full-Time Faculty<br>#: _____ |
|---|---|---|

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience:	Certification:
------------	-------------	----------------

<p><b>Education:</b></p> <p>Associates Degree minimum or equivalent college coursework</p>	<p><b>Experience:</b> Documented work experience directly related to the course(s) being taught</p> <p>Minimum of four years of related experience</p>	<p><b>Certification:</b> Professional, nationally recognized, achievement-based certification OR</p> <p>Licensure in the course(s) being taught</p>
--	--	---

**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Industrial Technology

**Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.**

The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

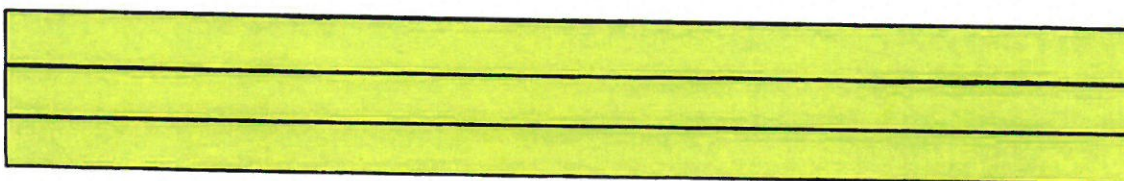
**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>12</u>	<u>20</u>	<u>30</u>	<u>45</u>	<u>60</u>
<u>EVENING</u>			<u>15</u>	<u>20</u>	<u>25</u>

ANTICIPATED ENROLLMENT:					
DISTANCE EDUCATION					
Describe Process for Attaining & Estimating Enrollment:	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Evening track will begin in the 2<sup>nd</sup> or 3<sup>rd</sup> year. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>				

PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Type/Name of Program Accreditation, Licensure or Certification Required:	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>

PROGRAM CURRICULUM						
(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)						
<b>See Attached Proposed Curriculum</b>						
Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours



**BENEFITS TO THE SYSTEM**

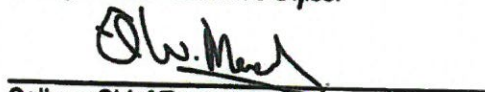
**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date



NWLTC Advanced Manufacturing Technology Program  
Proposed Program Curriculum Revision  
Effective 2018-2019

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
1st Semester								
8Wk	LEAD	1003	Career & Student Success (H)	3	2	2	90	New Course: Embedded IBC's: NCCER Core, Osha 10, Tappe Safe
	WKSF	1003	Industrial Workplace Safety (H)	3	2	2	90	
	IMFG	1013	Industrial Mathematics (H)	3	2	2	90	
8Wk	IMFG	1023	Machine Shop I	3	2	2	90	
	IMFG	1033	Machine Shop II	3	2	2	90	
1st Semester Totals		IBC	New Award: CTS 1 - Machinist Helper	15	10	10	450	1) Add a new award - CTS: Machinist Helper 2) renumbered courses with numbering convention 3) Revised SCH, Contact hour and Lec/Lab Combinations 4) Addition of LEAD 1003: Career and Student Success Course 5) Addition of WKSF 1003: Industrial Workplace Safety, 6) Elimination of TCA's
2nd Semester								
8Wk	IMFG	1213	Basic Lathe I	3	2	2	90	
	IMFG	1223	Basic Mill I	3	2	2	90	
	IMFG	1233	CNC I	3	2	2	90	
8Wk	IMFG	1243	Basic Lathe II	3	2	2	90	
	IMFG	1253	Basic Mill II	3	2	2	90	
	IMFG	1263	CNC II	3	2	2	90	
2nd Semester Total				18	12	12	540	
Award (2 Semesters)		IBC	Award: CTS - CNC Operator	33	22	22	990	1) Revised existing CTS - CNC Operator to include 33 SCH 2) Include IBC NIMS Certifications 3) Revised course SCH, Lec/Lab contact combinations, 4) Added Options of Work-based Learning Experiences
3rd Semester								
8Wk	IMFG	2013	Machine Shop III	3	2	2	90	
	IMFG	2023	CNC III	3	2	2	90	
8Wk	IMFG	2033	Machine Shop IV	3	2	2	90	
	IMFG	2043	Capstone: CNC IV	3	2	2	90	
3rd Semester Totals				12	8	8	360	
Award (3 Semesters)			Technical Diploma - Advanced Manufacturing Technician	45	30	30	1350	Renamed Technical Diploma from Industrial Manufacturing to Advanced Manufacturing Technician

With approval of Chief Academic Officer/Designer, the following courses may be substituted for any of the above course requirements individually or in combination:

Rubric	Number	Course Title	SCH	Lec	Lab	Contact Hrs
Experiential Learning Credit Course Options						
IMFG	2991	Special Project I	1	0	1	30
IMFG	2993	Special Project II	2	0	2	60
IMFG	2995	Special Project III	3	0	3	90
New Work-Based Learning Experience Options						
						EXT
WBLE	1003	Internship / Cooperative Education	3	1	3	105
WBLE	1011	Work-Based Learning Experience	1	0	0	45*
WBLE	1012	Work-Based Learning Experience	2	0	0	90*
WBLE	1013	Work-Based Learning Experience	3	0	0	135*
WBLE	1014	Work-Based Learning Experience	4	0	0	180*
WBLE	1021	Work-Based Learning Experience II	1	0	0	45*
WBLE	1022	Work-Based Learning Experience II	2	0	0	90*
WBLE	1023	Work-Based Learning Experience II	3	0	0	135*
WBLE	1024	Work-Based Learning Experience II	4	0	0	180*
WBLE	2031	Work-Based Learning Experience III	1	0	0	45*
WBLE	2032	Work-Based Learning Experience III	2	0	0	90*
WBLE	2033	Work-Based Learning Experience III	3	0	0	135*
WBLE	2034	Work-Based Learning Experience III	4	0	0	180*
WBLE	2041	Work-Based Learning Experience IV	1	0	0	45*
WBLE	2042	Work-Based Learning Experience IV	2	0	0	90*
WBLE	2043	Work-Based Learning Experience IV	3	0	0	135*
WBLE	2044	Work-Based Learning Experience IV	4	0	0	180*

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes of the course must meet

## Proposed Curriculum Revisions

Added:

New CTS: Machinist Helper (15.0613) 5 Stars - 15 SCH – clock hours 450

Revised:

CTS: CNC Operator (15.0613) 5 Star— Revised to 33 SCH – 990 clock hours

TD: Industrial Manufacturing Technology Machine Tools Technology Concentration (15.0613) 5 Star - renamed Advanced Manufacturing Technology - revised to 45 SCH – 1350 clock hours

## Northwest Louisiana Technical College

### Industrial Manufacturing Technology (CP 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.
<del>ORNT 1000</del>	<del>CORE COURSES: English Seminar</del>	<del>1</del>	<del>0</del>	<del>1</del>	<del>45</del>
<del>IMFG 1100</del>	<del>Introduction to Manufacturing</del>	<del>3</del>	<del>0</del>	<del>3</del>	<del>45</del>
<del>IMFG 1200</del>	<del>Tools and Equipment Used in Manufacturing</del>	<del>1</del>	<del>3</del>	<del>4</del>	<del>135</del>
<del>IMFG 1300</del>	<del>Automation</del>	<del>1</del>	<del>3</del>	<del>4</del>	<del>120</del>
<del>IMFG 1300</del>	<del>Introduction to Fabrication, Process Technology, &amp; Machining</del>	<del>1</del>	<del>3</del>	<del>4</del>	<del>135</del>
	<del>CTS – Certification for Manufacturing (CAM)</del>				<del>450</del>
	<del>AUTOMATION AND CONTROL CONCENTRATION (Course 15.0613)</del>				
<del>IMFG 1140</del>	<del>Hydraulics Applications</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>135</del>
<del>IMFG 1130</del>	<del>Pneumatics Applications</del>	<del>0</del>	<del>2</del>	<del>2</del>	<del>130</del>
<del>IMFG 1215</del>	<del>Basic Electronics</del>	<del>2</del>	<del>2</del>	<del>4</del>	<del>130</del>
<del>IMFG 1220</del>	<del>Digital Electronics</del>	<del>1</del>	<del>2</del>	<del>3</del>	<del>145</del>
	<del>CTS – INDUSTRIAL ELECTRONIC TECHNICIAN</del>				<del>995</del>
<del>IMFG 1230</del>	<del>Introduction to Programming</del>	<del>1</del>	<del>2</del>	<del>3</del>	<del>125</del>
<del>IMFG 1235</del>	<del>Motor Controls</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>145</del>
<del>IMFG 1250</del>	<del>Advanced PLC Applications</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>145</del>
	<del>Elective or Co-op</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>130</del>
<del>JOE 2450</del>	<del>Job Seeking Skills</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>130</del>
	<del>TD – Industrial Manufacturing Technology</del>	<del>2</del>	<del>0</del>	<del>2</del>	<del>570</del>
	<del>Automation and Control Concentration</del>				<del>45</del>
	<del>159C</del>				<del>159C</del>
	<del>MILLWRIGHT CONCENTRATION (Course 15.0613)</del>				
<del>IMFG 1320</del>	<del>Millwright I</del>	<del>3</del>	<del>0</del>	<del>3</del>	<del>90</del>
<del>IMFG 1321</del>	<del>Millwright II</del>	<del>0</del>	<del>2</del>	<del>2</del>	<del>130</del>
<del>IMFG 1420</del>	<del>Millwright II</del>	<del>2</del>	<del>0</del>	<del>2</del>	<del>90</del>
<del>IMFG 1421</del>	<del>Millwright II</del>	<del>0</del>	<del>3</del>	<del>3</del>	<del>130</del>
<del>IMFG 1422</del>	<del>Pneumatics Applications</del>	<del>0</del>	<del>2</del>	<del>2</del>	<del>450</del>
	<del>CTS – MILLWRIGHT TECHNICIAN</del>				<del>28</del>
<del>IMFG 1325</del>	<del>Pipelining</del>	<del>0</del>	<del>2</del>	<del>2</del>	<del>75</del>

Revised April 2017

Industrial Manufacturing Technology

Effective January 2018

## Renamed Advanced Manufacturing Technology & Revised

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

Terminated:

- CTS – Certification for Manufacturing (CAM)
- CTS – Industrial Electronic Technician
- CTS – Millwright Apprentice
- TD – Industrial Manufacturing Technology – Automation and Controls Concentration
- TD – Industrial Manufacturing Technology – Millwright Concentration
- CTS Instrumentation / Electrical Technician
- TD – Industrial Manufacturing Technology – Industrial Instrumentation & Electrical Technician Concentration
- CTS – Instrumentation / Electrical Technician
- CTS - Advanced Manufacturing Technician

**Deleted Courses**  
 Courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced— Numbering Convention details attached.

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

# Proposed Curriculum Revisions

## Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced — Numbering Convention details attached.

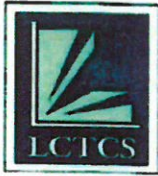
## Renamed & Revised

Course Number	Course Title	0	1	2	3	4	5	6	7	8	9
IMFG 1110	Shop Mathematics	2	1	1	3	3					
IMFG 1310	Machine Shop I	3	3	3	6	3					
IMFG 1340	Basic Lathe	0	3	3	3	3					
IMFG 1440	Basic Mill	0	3	3	3	3					
IMFG 1410	Machine Shop II	3	3	3	6	3					
IMFG 2710	CNC	1	2	2	3	3					
IMFG 2720	Precision Grinding	0	1	2	3	3					
IOSB 2450	Job Seeking Skills	2	0	0	2	2					
<b>INDUSTRIAL INSTRUMENTATION &amp; ELECTRICAL CONCENTRATION (See the following)</b>											
IMFG 1240	Introduction to Industrial Instrumentation	1	2	2	3	3					
IMFG 1433	Wiring/Electrical Blueprint Interpretation	2	1	1	3	3					
IMFG 1214	Basic Electronics	1	1	2	3	3					
ELMT 2520	National Electrical Code	0	2	2	2	2					
IMFG 2123	Understanding Programmable Controllers	1	2	2	3	3					
IMFG 1235	Motor Controls	0	3	3	3	3					
INST 1330	Pressure and Level Measurement	1	3	4	4	4					
IMFG 1413	Flow and Level Control	2	1	3	3	3					
IMFG 2733	Introduction to Temperature & Analytical Processes	2	1	1	3	3					
IOSB 2450	Job Seeking Skills	2	0	0	2	2					
IMFG 2990	Industrial Instrumentation & Electrical Technician Concentration				45	1690					
IMFG 2991	Special Projects I	0	1	1	1	30					
IMFG 2993	Special Projects II	0	2	2	2	60					
IMFG 2995	Special Projects III	0	3	3	3	90					
IMFG 2996	Special Projects IV	3	0	3	3	45					
IMFG 2997	Special Projects V	1	0	1	1	15					
IMFG 2998	Practicum	0	3	3	3	135					
IMFG 2999	Supervisory Education	0	3	3	3	135					

*Note: Courses from the following table are approved for the following conversion chart based on the following requirements.*

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

- Terminated:
- CTS – Certification for Manufacturing (CAM)
- CTS – Industrial Electronic Technician
- CTS – Millwright Apprentice
- TD – Industrial Manufacturing Technology – Automation and Controls Concentration
- TD - Industrial Manufacturing Technology – Millwright Concentration
- CTS Instrumentation / Electrical Technician
- TD – Industrial Manufacturing Technology – Industrial Instrumentation & Electrical Technician Concentration
- CTS – Instrumentation / Electrical Technician



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: Air Conditioning and Refrigeration Technician		

<b>AWARD LEVEL(S)</b>	
For Board of Regents and LCTCS Review: <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	For LCTCS Review: <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: TD – HVAC Technician (Renamed from existing TD: Residential A/C & Refrigeration Technician)			
CIP: 47.0201	Credit Hours: 45	Contact Hours: 1530	Award Level: TD
Name: CTS – HVAC Helper – Level I			
CIP: 150699	Credit Hours: 17	Contact Hours: 570	Award Level: CTS
Name: CTS – HVAC Helper – Level II			
CIP: 150699	Credit Hours: 31	Contact Hours: 1050	Award Level: CTS

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded

NCCER Safety Core OSHA 10 TappeSafe	NCCER OSHA TappeSafe	Industrial Workplace Safety	WKSF	1003	3
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<p><b>PROPOSED CHANGE</b>  <b>a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.</b></p>			
<p>Existing Awards to be terminated:</p> <p style="padding-left: 40px;">TCA – HVAC Helper I - Terminate</p> <p style="padding-left: 40px;">CTS – Domestic A/C &amp; Refrigeration Technician - Terminate</p> <p style="padding-left: 40px;">CTS – HACR Energy Systems Technician - Terminate</p> <p style="padding-left: 40px;">TD – Commercial Air Conditioning Technician - Terminate</p> <p style="padding-left: 40px;">TCA - Solar System Installer - Terminate</p> <p>New and Revised Awards:</p> <ol style="list-style-type: none"> <li>1. New CTS: <b>HVAC Helper – Level I</b> (47.0201) 4 Stars 17 SCH – clock hours 570</li> <li>2. Rename CTS: – HVAC Helper II to <b>HVAC Helper – Level II</b> (47.0201) 4 Stars and revise to 31 SCH – 1050 clock hours</li> <li>3. Rename existing TD in Residential A/C &amp; Refrigeration Technician to <b>HVAC Technician</b> (47.0201) 4 Stars and revise to 45 SCH – 1530 clock hours</li> </ol>			
<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;"><b>IMPLEMENTATION DATE (Semester and Year)</b></td> <td>Fall 2018</td> </tr> </table>		<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018
<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018		

<p><b>HISTORY OF PRIOR ACTIONS</b>  <b>Provide an overview of changes to this program.</b></p>
--

Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

This request is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission.

**JUSTIFICATION FOR THE PROPOSED CHANGE**

Include support such as four-year university agreements, Industry demand, advisory board information, etc.

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the HVAC Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week parts of terms, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater students success. Regional and Statewide labor market information demonstrates a continued need for the Welding Technology program emphasizing Industrial and manufacturing applications.

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

- 5 Stars    
  4 Stars    
  3 Stars    
  2 Stars    
  1 Star

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

- |                                      |  |   |   |
|--------------------------------------|--|---|---|
| <input type="checkbox"/> Main Campus | <input checked="" type="checkbox"/> All Campuses | <input type="checkbox"/> Sites (list below) | <input type="checkbox"/> Distance Education |
|--------------------------------------|--|---|---|

Site 1: Shreveport Campus
Site 2:
Site 3
Site 4:

**QUALIFIED FACULTY (Check all that apply)**

<input type="checkbox"/> Use Existing Faculty #: <u>(1 full-time, 0 part-time)</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____
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**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience:	Certification:
Education: 2-year Post-Secondary Award (Associates Degree) or Alternative Certification	Experience: 4 yrs employment in the field	Certification:

**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Industrial Studies

Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.

The affects expected as a result of these changes include increased enrollment, greater persistence and completion. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time will likely be needed for the robust program.

**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>71</u>	<u>76</u>	<u>80</u>	<u>90</u>	<u>100</u>
<u>EVENING</u>	<u>15</u>	<u>20</u>	<u>24</u>	<u>36</u>	<u>48</u>
<u>DISTANCE EDUCATION</u>					

<b>ANTICIPATED ENROLLMENT:</b>	
<p>Describe Process for Attaining &amp; Estimating Enrollment:</p>	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening students. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those that need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the work-based learning that takes place in the lab and during work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer due to part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>

<b>PROGRAM ACCREDITATION:</b>	
<p>Is Program Accreditation, Licensure or Certification Required?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If YES, please provide projected accreditation/licensure/certification date: <b>2014</b></p>
<p>Type/Name of Program Accreditation, Licensure or Certification Required:</p>	<p>Council on Occupational Education (COE)</p>

<b>PROGRAM CURRICULUM</b>						
<p>(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)</p>						
<p><b>Note: See Attachments for Existing and Proposed HVAC Program</b></p>						





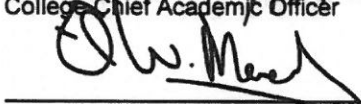


These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/23/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

NWLTC HVAC Technology Program  
Proposed Program Curriculum Revision  
Effective 2018-2019

Semester	Rubric	No.	Course Title [H = Hybrid course]	SCH	Lec	Lab	Contact Hour	Comments
<b>1st Semester</b>								
8Wk	LEAD	1003	Career & Student Success (H)	3	2	2	90	New Course: Embedded IBC's: NCCER Core, Osha 10, Tappe Safe
	WKSF	1003	Industrial Workplace Safety (H)	3	2	2	90	
	HVAC	1013	Introduction to HVAC	4	2	4	150	
8Wk	HVAC	1023	Principles of Refrigeration	4	2	4	150	
	HVAC	1033	Fundamentals of Electricity	3	2	2	90	
<b>1st Semester Totals</b>				<b>17</b>	<b>10</b>	<b>14</b>	<b>570</b>	<b>Eliminated TCA's</b>
<b>2nd Semester</b>								
8Wk	HVAC	1213	Electric Motors and Components	4	2	4	150	
	HVAC	1223	Residential Central Air I	3	2	2	90	
8Wk	HVAC	1233	Applied Electricity & Troubleshooting	4	5	4	150	
	HVAC	1243	Residential Central Air II	3	2	2	90	
<b>2nd Semester Total</b>				<b>14</b>	<b>11</b>	<b>12</b>	<b>480</b>	
<b>Award (2 Semesters)</b>				<b>31</b>	<b>21</b>	<b>26</b>	<b>1050</b>	<b>CTS: HVAC Helper - Level II</b>
1) Created new CTS 1: HVAC Helper I 2) Revised courses in existing CTS - HVAC Helper II 3) Revised course SCH, lec/lab contact combinations, 4) Added Options of Work-based Learning Experiences 5) Eliminated TCA's 6) Eliminated CTS: Domestic A/C and Refrigeration Technician 7) Courses renamed and numbered using HVAC Rubric and the NWLTC Numbering Convention.								
<b>3rd Semester</b>								
8Wk	HVAC	2013	Residential Heating	4	2	4	150	
	HVAC	2023	Heat Pumps and Specialized Equipment	3	2	2	90	
8Wk	HVAC	2033	Residential System Troubleshooting	3	2	2	90	
	HVAC	2043	Capstone: HVAC System Design	4	2	4	150	
<b>3rd Semester Totals</b>				<b>14</b>	<b>8</b>	<b>12</b>	<b>480</b>	
<b>Award (3 Semesters)</b>				<b>45</b>	<b>29</b>	<b>38</b>	<b>1530</b>	<b>Technical Diploma - HVAC Technician</b>
1) Renamed Technical Diploma 2) Revised course SCH, lec/lab contact combinations, 3) Added Options of Work-based Learning Experiences 4) Eliminated AAS 5) Renamed TD: Residential A/C and Refrigeration Technician to TD: HVAC Technician								

With approval of Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements individually or in combination:

Experiential Learning Credit Course Options						
Rubric	Number	Course Title	SCH	Lec	Lab	Contact Hrs
HVAC	2991	Special Project I	1	0	1	30
HVAC	2993	Special Project II	2	0	2	60
HVAC	2995	Special Project III	3	0	3	90

New Work-Based Learning Experience Options						
WBLE	Number	Course Title	SCH	Lec	Lab	Contact Hrs
						EXT
WBLE	1003	Internship / Cooperative Education	3	1	3	105
WBLE	1011	Work-Based Learning Experience	1	0	0	45*
WBLE	1012	Work-Based Learning Experience	2	0	0	90*
WBLE	1013	Work-Based Learning Experience	3	0	0	135*
WBLE	1014	Work-Based Learning Experience	4	0	0	180*

WBLE	1021	Work-Based Learning Experience II	1	0	0	45*
WBLE	1022	Work-Based Learning Experience II	2	0	0	90*
WBLE	1023	Work-Based Learning Experience II	3	0	0	135*
WBLE	1024	Work-Based Learning Experience II	4	0	0	180*

WBLE	2031	Work-Based Learning Experience III	1	0	0	45*
WBLE	2032	Work-Based Learning Experience III	2	0	0	90*
WBLE	2033	Work-Based Learning Experience III	3	0	0	135*
WBLE	2034	Work-Based Learning Experience III	4	0	0	180*

WBLE	2041	Work-Based Learning Experience III	1	0	0	45*
WBLE	2042	Work-Based Learning Experience III	2	0	0	90*
WBLE	2043	Work-Based Learning Experience III	3	0	0	135*
WBLE	2044	Work-Based Learning Experience III	4	0	0	180*

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes of the course must meet the standard of a minimum 45 contact or clock hours = 1 Semester Credit Hour

Work-based Learning Experiences may include:  
Live Work, Clinicals, Internships, Cooperatives, Practicums, and Apprenticeships.

## Proposed Curriculum Revisions

### Added:

- ◆ New CTS: HVAC Helper – Level I (47.0201) 4 Stars—17 SCH – clock hours 570
- ◆ Rename CTS: – HVAC Helper II to HVAC Helper – Level II (47.0201) 4 Stars and revise to 31 SCH – 1050 clock hours
- ◆ Rename TD – Residential A/C & Refrigeration Technician to HVAC Technician (47.0201) 4 Stars and revise to 45 SCH – 1530 clock hours

### Deleted Courses

Courses were removed, redesigned and renumbered using HVAC rubric and the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced— Numbering Convention details attached.

## 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

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

Terminated:

Technical Competency Area (TCA) – HVAC Helper I  
Certificate of Technical Studies (CTS) – Domestic A/C Refrigeration Technician  
Certificate of Technical Studies (CTS) – HVAC Energy Systems Technician

Technical Competency Area (TCA) - Solar System Installer

Technical Diploma in Commercial Refrigeration Technician

Technical Diploma in Commercial Air Conditioning Technician

Renamed and revised

Course #	Course Title	Lecture /Job 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>Technical Competency Area (TCA) – HVAC Helper I</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>Technical Competency Area (TCA) - Solar System Installer</b>				
HACR 1410	Domestic Refrigeration	1/1	2	75
HACR 1420	Room Air Conditioners	1/1	2	75
<b>Technical Competency Area (TCA) - Solar System Installer</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
<b>Technical Diploma in Commercial Refrigeration Technician</b>				
Syllabus Conversion of HVAC Helper I to HVAC Helper – Level I				45
Syllabus Conversion of HVAC Helper II to HVAC Helper – Level II				1995
<b>Technical Diploma in Commercial Air Conditioning Technician</b>				
Syllabus Conversion of HVAC Helper I to HVAC Helper – Level I				45
Syllabus Conversion of HVAC Helper II to HVAC Helper – Level II				1995
<b>Technical Diploma in Commercial Air Conditioning Technician</b>				
HACR2510	Residential Central Air Conditioning I	1/2	3	115
SOLR 1000	Solar Fundamentals	3/0	3	45
SOLR 1030	Solar Thermal Applications	1/2	3	115
<b>Technical Diploma in Commercial Air Conditioning Technician</b>				
HACR 2810	Commercial Air Conditioning I	2/4	6	265

Revised March 2017 Effective January 2018

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

## Proposed Curriculum Revisions

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

PAGE 2

### AIR CONDITIONING AND REFRIGERATION TECHNICIAN Program Description & Curriculum

HACR 2820	Commercial Air Conditioning Controls	3/4	7	265
HACR 2830	Commercial Air Conditioning II	2/4	6	235
<i>Successful completion of HACR 2820 and HACR 2830 meets the requirements for the 3-course ID- Commercial Air Conditioning Technician</i>				
HACR 2910	Commercial Refrigeration I	2/4	7	265
HACR 2920	Commercial Refrigeration II	3/4	7	265
HACR 1000	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of HACR 2910, HACR 2920, HACR 1000, CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Commercial Refrigeration Technician</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Heavy Equipment Operator</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75
	<i>Successful completion of CSRV 1000, ENTP 1000, SOLR 1010, SOLR 1020, and SOLR 1030 meets the requirements for the ID- Technical Competency Area (TCA) - Solar System Installer</i>			
	<b>Technical Electives</b>			
	Introduction to Computers	1/1	2	45
	Customer Service	3/0	3	45
	Customer Service & Sales	3/0	3	45
	Foundation of Entrepreneurship	3/0	3	45
	Solar Fundamentals	2/0	3	45
	PV Solar Applications	1/2	3	75
	Industrial Solar Applications	1/2	3	75
	Solar Thermal Applications	1/2	3	75

Added:

- New CTC: Heavy Equipment Operations – Level I (49.0202) 4 Stars— 13SCH – clock hours 420

- New CTC: - Heavy Equipment Operations – Level II (49.0202) 4 Stars— 21SCH – 720 clock hours

- CTS: Heavy Construction Vehicle Operator (49.0202) 4 Stars—revised to 28SCH – 960 clock hours

Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced – Numbering Convention details attached.

Terminated:  
 Technical Diploma in Commercial Air Conditioning Technician  
 Technical Competency Area (TCA) – Solar System Installer  
 Technical Diploma in Commercial Refrigeration Technician

Revised March 2017

Effective January 2018

# Proposed Curriculum Revisions

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

With approval of Chief Academic Officer/designees, the following courses may be substituted for any of the above course requirements individually or in combination:

Rubric Number	Course Title	SCH	Lec	Lab	Contact Hrs
HVAC 2991	Special Project I	1	0	1	30
HVAC 2993	Special Project II	2	0	2	60
HVAC 2995	Special Project III	3	0	3	90

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes of the course must meet the standard of a minimum 45 contact or clock hours = 1 Semester Credit Hour

Work-based Learning Experiences may include:  
 Live Work, Clinicals, Internships, Cooperatives, Practicums, and Apprenticeships.

		New Work-Based Learning Experience Options					EXT
WBLE 1003	Internship / Cooperative Education	3	1	3	105		
WBLE 1011	Work-Based Learning Experience	1	0	0	45*		
WBLE 1012	Work-Based Learning Experience	2	0	0	90*		
WBLE 1013	Work-Based Learning Experience	3	0	0	135*		
WBLE 1014	Work-Based Learning Experience	4	0	0	180*		
WBLE 1021	Work-Based Learning Experience II	1	0	0	45*		
WBLE 1022	Work-Based Learning Experience II	2	0	0	90*		
WBLE 1023	Work-Based Learning Experience II	3	0	0	135*		
WBLE 1024	Work-Based Learning Experience II	4	0	0	180*		
WBLE 2031	Work-Based Learning Experience III	1	0	0	45*		
WBLE 2032	Work-Based Learning Experience III	2	0	0	90*		
WBLE 2033	Work-Based Learning Experience III	3	0	0	135*		
WBLE 2034	Work-Based Learning Experience III	4	0	0	180*		
WBLE 2041	Work-Based Learning Experience III	1	0	0	45*		
WBLE 2042	Work-Based Learning Experience III	2	0	0	90*		
WBLE 2043	Work-Based Learning Experience III	3	0	0	135*		
WBLE 2044	Work-Based Learning Experience III	4	0	0	180*		



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Heavy Equipment Vehicle Operator</b>		

<b>AWARD LEVEL(S)</b>	
For Board of Regents and LCTCS Review: <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	For LCTCS Review: <input type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Heavy Equipment Vehicle Operations – Level I			
CIP: 49.0202	Credit Hours: 13	Contact Hours: 420	Award Level: CTC
Name: Heavy Equipment Operations - Level II			
CIP: 49.0202	Credit Hours: 21	Contact Hours: 720	Award Level: CTS
Name: Heavy Equipment Vehicle Operator			
CIP: 49.0202	Credit Hours: 28	Contact Hours: 960	Award Level: CTS
Name:			
CIP:	Credit Hours:	Contact Hours:	Award Level:.

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded



NCCER Safety Core	NCCER	Industrial Workplace Safety	WKSF	1003	3
OSHA 10	OSHA	Industrial Workplace Safety	WKSF	1003	3
TappeSafe	TappeSafe	Industrial Workplace Safety	WKSF	1003	3
NCCER Level I	NCCER	Intro to Earthmoving	HCVO	1023	4
NCCER Level II	NCCER	Soils and Machinery	HCVO	1143	4
Commercial Drivers License	Louisiana Dept of Transportation	Commerical Vehicle Operations	CTDP	1064	4

### PROPOSED CHANGE

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

#### Program Revisions:

1. New CTC: Heavy Equipment Operations – Level I (49.0202) **4 Stars**  
13 SCH – clock hours 420
2. New CTS: - Heavy Equipment Operations – Level II (49.0202) **4 Stars**  
21 SCH – 720 clock hours
3. CTS: Heavy Construction Vehicle Operator (49.0202) **4 Stars**  
revised to 28 SCH – 960 clock hours

#### Program Terminations

4. Technical Competency Area (TCA) - NCCER Core Certification
5. Technical Competency Area (TCA) – Construction Vehicle Operator
6. Technical Competency Area (TCA) – Heavy Equipment Operator

NWLTC faculty and staff are reviewing all programs. NWLTC is requesting to revise the existing CTS: Heavy Construction Vehicle Operator by revising SCH and contact hours. With this change comes the removal of several TCAs and a CTS. Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and

awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region

Proposed Curriculum Revisions: **See Attached Curriculum Revisions**

COURSE NAME	Lecture		Laboratory		Work-Based		Course Totals	
	Clock	Credit	Clock	Credit	Clock	Credit	Clock	Credit
<b>TOTAL ALL COLUMNS</b>								

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018
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**HISTORY OF PRIOR ACTIONS**  
**Provide an overview of changes to this program.**

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

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

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester,

providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

5 Stars     
  4 Stars     
  3 Stars     
  2 Stars     
  1 Star

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

Main Campus     
  All Campuses     
  Sites (list below)     
  Distance Education

Site 1: Shreveport Campus - Shreveport, LA  
 Site 2: Mansfield Campus – Mansfield, LA  
 Site 3: Minden Campus – Minden, LA (Main Campus)  
 Site 4: Camp Minden – Minden, LA [Education Site]

**QUALIFIED FACULTY** (Check all that apply)

Use Existing Faculty  
 #: 2 full-time, 1 part-time

Hire Adjunct Faculty  
 #: \_\_\_\_\_

Hire Full-Time Faculty  
 #: \_\_\_\_\_

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education: \_\_\_\_\_     
 Experience: \_\_\_\_\_     
 Certification: \_\_\_\_\_

<p><b>Education:</b></p> <p>Associates Degree minimum or equivalent college coursework</p>	<p><b>Experience:</b> Documented work experience directly related to the course(s) being taught</p> <p>Minimum of four years of experience in HCVO or related field.</p>	<p><b>Certification:</b> Professional, nationally recognized, achievement-based certification OR</p> <p>Licensure in the course(s) being taught</p> <p>Must possess a current CDL</p>
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<p><b>FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS</b></p>
<p>Department: Technical Studies</p>
<p><b>Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.</b></p>
<p>The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.</p>

<p><b>ANTICIPATED ENROLLMENT:</b></p>					
<p><b>Students</b></p>	<p><b>Year One</b></p>	<p><b>Year Two</b></p>	<p><b>Year Three</b></p>	<p><b>Year Four</b></p>	<p><b>Year Five</b></p>
<p><u>DAY</u></p>	<p><u>85</u></p>	<p><u>90</u></p>	<p><u>95</u></p>	<p><u>100</u></p>	<p><u>105</u></p>

ANTICIPATED ENROLLMENT:					
<u>EVENING</u>					
<u>DISTANCE EDUCATION</u>					
Describe Process for Attaining & Estimating Enrollment:		<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>			

PROGRAM ACCREDITATION:	
Is Program Accreditation, Licensure or Certification Required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>
Type/Name of Program Accreditation, Licensure or Certification Required:	Department of Health and Hospitals & Council on Occupational Education

PROGRAM CURRICULUM						
(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)						
<b>See Attached Proposed Curriculum</b>						
Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours


**BENEFITS TO THE SYSTEM**

**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

**NWLTC HCVO Program  
Proposed Program Curriculum Revision  
Effective 2018-2019**

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
1st Semester	8Wk	LEAD 1003	Career & Student Success (H)	3	2	2	90	
		WKSF 1003	Industrial Workplace Safety (H)	3	2	2	90	New Course: Embedded IBC's: NCCER Core, Osha 10, Tappe Safe
	8Wk	HCVO 1013	Orientation to the Construction Trade	3	2	2	90	
		HCVO 1023	Introduction to Earth Moving	4	2	4	150	
		<b>IBC</b>		<b>13</b>	<b>8</b>	<b>10</b>	<b>420</b>	<b>NCCER Safet Core, OSHA 10, NCCER Level 1, TappeSafe</b>
		<b>1st Semester Totals</b>		<b>13</b>	<b>8</b>	<b>10</b>	<b>420</b>	
2nd Semester	8Wk	HCVO 1133	Construction Technology & Equipment	4	2	4	150	
		HCVO 1143	Soils & Machinery	4	2	4	150	SCH: 21 , IEC 12, LAB 18, clock hrs 720 - IBC: NCCER Level II
		<b>CTS - Heavy Equipment Operations - Level II</b>						
	8Wk	CTDP 1053	Commercial Vehicle Operations & Regulations	3	3	1	75	
		CTDP 1064	Commercial Vehicle Operations II	4	1	5	165	
		<b>2nd Semester Total</b>		<b>15</b>	<b>8</b>	<b>14</b>	<b>540</b>	
<b>Award: 2 Semester Totals</b>			<b>CTS: Heavy Equieiment Vehicle Operator</b>	<b>28</b>	<b>16</b>	<b>24</b>	<b>960</b>	<b>IBC: Commercial Drivers License</b>

## Proposed Curriculum Revisions

# 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 degree and certificate may vary at each campus. Check with your local campus for more information.*

### Added:

- ◆ New CTC: Heavy Equipment Operations – Level I (49.0202) 4 Stars—13SCH – clock hours 420
- ◆ New CTS: - Heavy Equipment Operations – Level II (49.0202) 4 Stars—21SCH – 720 clock hours

- ◆ CTS: Heavy Construction Vehicle Operator (49.0202) 4 Stars—revised to 28SCH – 960 clock hours

### Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

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 – Heavy Construction Vehicle Operator – 8 Stars</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 Operation – 12 Stars</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 – 12 Stars</b>				
HCVO 2991	Special Projects I	0/1	1	30
<b>CTS – Heavy Construction Vehicle Operator – 32 Stars</b>				

Terminated:

TCA: NCCER Core Certifications

TCA: Construction Vehicle Operator

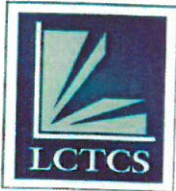
TCA: Heavy Equipment Operator

Revised: CTS: Heavy Equipment Vehicle Operator (revised)

28 SCH—960 clock hours

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.





## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Industrial Maintenance Technology</b>		

<b>AWARD LEVEL(S)</b>	
<p>For Board of Regents and LCTCS Review:</p> <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	<p>For LCTCS Review:</p> <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: (New) Electrical Raceway – Conduit Technician			
CIP: 47.0303	Credit Hours: 13	Contact Hours: 390	Award Level: New CTC
Name: Pneumatic and Hydraulic Technician (Formerly Pneumatic / Hydraulic Apprentice)			
CIP: 47.0303	Credit Hours: 25	Contact Hours: 750	Award Level: CTS
Name: (New) Maintenance Helper			
CIP: 47.0303	Credit Hours: 31	Contact Hours: 960	Award Level: CTS
Name: Industrial Maintenance Technology			
CIP: 47.0303	Credit Hours: 45	Contact Hours: 1500	Award Level: TD

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded
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NCCER Safety Core	NCCER	Industrial Workplace Safety	WKSF	1003	3
OSHA 10	OSHA	Industrial Workplace Safety	WKSF	1003	3
TappeSafe	TappeSafe	Industrial Workplace Safety	WKSF	1003	3

**PROPOSED CHANGE**

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

**Program Revisions:**

1. New CTC: Electrical Raceway – Conduit Technician (47.0303) 5 Stars  
13 SCH – clock hours 390 (IBC – NCCER Safety Core, Osha 10, TappeSafe)
2. CTS: Pneumatic / Hydraulic Apprentice renamed to Hydraulic and Pneumatic Technician (47.0303) 5 Star  
Revised to 25 SCH – 750 clock hours
3. New CTS: Maintenance Helper (47.0303) 5 Star  
31 SCH – 960 clock hours
4. TD: Industrial Maintenance Technology (15.0613) 5 Star  
revised to 45 SCH – 1500 clock hours

**Program Terminations**

1. TCA – Welder Helper
2. TCA – Fabrication Apprentice
3. TCA – Electrical Helper
4. TCA – Pneumatic Helper
5. TCA – Hydraulic Helper
6. TCA – Millwright Helper
7. CTS – Millwright Apprentice

NWLTC faculty and staff are reviewing all programs. NWLTC is requesting to revise the existing Industrial Maintenance Technology program to tightly focus the program and student learning outcomes. This will include the elimination of multiple TCA's and a CTS. In addition, the semester credit hours and clock hours for the remaining awards were revised including 1 CTS and 1 Technical Diploma. Two (2) new CTS's were added.

Currently the program is difficult for faculty to implement and for students to navigate due to the excessive course choices and awards that have limited regional market value with limited employment exit points within the Northwest Louisiana region.

Proposed Curriculum Revisions: **See Attached Curriculum Revisions**

COURSE NAME	Lecture		Laboratory		Work-Based		Course Totals	
	Clock	Credit	Clock	Credit	Clock	Credit	Clock	Credit
<b>TOTAL ALL COLUMNS</b>								

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

<b>IMPLEMENTATION DATE (Semester and Year)</b>	Fall 2018
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**HISTORY OF PRIOR ACTIONS**  
Provide an overview of changes to this program.

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

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

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices

of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

- 5 Stars    
  4 Stars    
  3 Stars    
  2 Stars    
  1 Star

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

- Main Campus    
  All Campuses    
  Sites (list below)    
  Distance Education

Site 1: Minden Campus – Minden, LA  
 Site 2: Shreveport Campus – Shreveport, LA

**QUALIFIED FACULTY (Check all that apply)**

- Use Existing Faculty  
     #: 1 full-time, 0 part-time
- Hire Adjunct Faculty  
     #: \_\_\_\_\_
- Hire Full-Time Faculty  
     #: 1

**MINIMUM CREDENTIALS REQUIRED FOR FACULTY**

Education:	Experience:	Certification:
------------	-------------	----------------

<p><b>Education:</b></p> <p>Associates Degree minimum or equivalent college coursework</p>	<p><b>Experience:</b> Documented work experience directly related to the course(s) being taught</p> <p>Minimum of four years of related experience</p>	<p><b>Certification:</b> Professional, nationally recognized, achievement-based certification OR</p> <p>Licensure in the course(s) being taught</p>
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**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Industrial Technology

**Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.**

The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

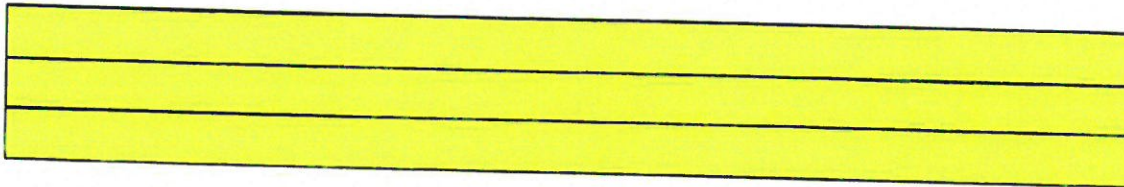
**ANTICIPATED ENROLLMENT:**

Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>35</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>72</u>
<u>EVENING</u>	<u>12</u>	<u>15</u>	<u>20</u>	<u>24</u>	<u>30</u>

<b>ANTICIPATED ENROLLMENT:</b>					
<u>DISTANCE</u> <u>EDUCATION</u>					
Describe Process for Attaining & Estimating Enrollment:	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Evening track will begin in the 2<sup>nd</sup> or 3<sup>rd</sup> year. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>				

<b>PROGRAM ACCREDITATION:</b>	
Is Program Accreditation, Licensure or Certification Required?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>
Type/Name of Program Accreditation, Licensure or Certification Required:	

<b>PROGRAM CURRICULUM</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)						
<b>See Attached Proposed Curriculum</b>						
Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours



**BENEFITS TO THE SYSTEM**

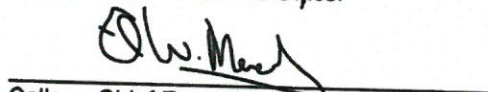
**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

NWLTC Industrial Maintenance Technology Program  
 Proposed Program Curriculum Revision  
 Effective 2018-2019

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
<b>1st Semester</b>								
8Wk	LEAD	1003	Work Readiness (H)	3	2	2	90	New Course: Embedded IBC's: NCCER Core, Osha 10, Tappe Safe
	WKSF	1003	Industrial Workplace Safety (H)	3	2	2	90	
	IMMT	1311	Pipefitting	2	2	1	60	
	IMMT	1410	Basic Electricity	1	2	0	30	
	IMMT	1411	Basic Electricity Lab	3	2	2	90	
	IMMT	1120	Blueprint Reading	1	2	0	30	
<b>1st Semester Totals</b>				<b>13</b>	<b>12</b>	<b>7</b>	<b>390</b>	
<b>2nd Semester</b>								
8Wk	IMMT	1220	Pneumatics	3	2	2	90	IBC: Material Handling + Forklift Training
	IMMT	1221	Pneumatics Application	3	2	2	90	
8Wk	IMMT	1230	Hydraulics	3	2	2	90	
	IMMT	1241	Hydraulics Troubleshooting Projects	3	2	2	90	
<b>2nd Semester Total</b>				<b>12</b>	<b>8</b>	<b>8</b>	<b>360</b>	
<b>Award (2 Semesters)</b>				<b>25</b>	<b>20</b>	<b>15</b>	<b>750</b>	<b>25 SCH LEC 20 / LAB 15 Clock hours 750</b>
<b>3rd Semester</b>								
8Wk	IMMT	1111	Maintenance Welding I	3	1	3	105	
	IMMT	1112	Maintenance Welding II	3	1	3	105	
<b>Award (2.5 semesters)</b>								<b>31 SCH LEC 22 / LAB 21 Clock hours 960</b>
8Wk	IMMT	1430	Motor Controls	3	1	3	105	
	IMMT	1320	Millwright I	4	1	5	165	
<b>3rd Semester Totals</b>				<b>13</b>	<b>4</b>	<b>14</b>	<b>480</b>	
<b>4th Semester</b>								
8Wk	IMMT	1330	Millwright II	4	1	5	165	
	IMMT	1440	Programmable Logic Controllers	3	1	3	105	
<b>4th Semester Totals</b>				<b>7</b>	<b>2</b>	<b>8</b>	<b>270</b>	
<b>Award (4 Semesters)</b>				<b>45</b>	<b>26</b>	<b>37</b>	<b>1500</b>	<b>Technical Diploma - Industrial Maintenance Technology</b>

With approval of Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements individually or in combination:

Rubric	Number	Course Title	SCH	Lec	Lab	Contact Hrs
IMMT	2991	Special Project I	1		1	30
IMMT	2993	Special Project II	2	0	2	60
IMMT	2995	Special Project III	3	0	3	90
IMMT	2996	Special Project IV	4		4	120

New Work-Based Learning Experience Options						
WBLE	Number	Course Title	SCH	Lec	Lab	EXT
WBLE	1003	Internship / Cooperative Education	3	1	3	105
WBLE	1011	Work-Based Learning Experience	1	0	0	45*
WBLE	1012	Work-Based Learning Experience	2	0	0	90*
WBLE	1013	Work-Based Learning Experience	3	0	0	135*
WBLE	1014	Work-Based Learning Experience	4	0	0	180*

WBLE	1021	Work-Based Learning Experience II	1	0	0	45*
WBLE	1022	Work-Based Learning Experience II	2	0	0	90*
WBLE	1023	Work-Based Learning Experience II	3	0	0	135*
WBLE	1024	Work-Based Learning Experience II	4	0	0	180*

WBLE	2031	Work-Based Learning Experience III	1	0	0	45*
WBLE	2032	Work-Based Learning Experience III	2	0	0	90*
WBLE	2033	Work-Based Learning Experience III	3	0	0	135*
WBLE	2034	Work-Based Learning Experience III	4	0	0	180*

WBLE	2041	Work-Based Learning Experience III	1	0	0	45*
WBLE	2042	Work-Based Learning Experience III	2	0	0	90*
WBLE	2043	Work-Based Learning Experience III	3	0	0	135*
WBLE	2044	Work-Based Learning Experience III	4	0	0	180*

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes

Work-based Learning Experiences may include: Live Work, Clinicals, Internships, Cooperatives,



## Proposed Curriculum Revisions

### Added:

- ◆ New CTC: Electrical Raceway – Conduit Technician (47.0303) 5 Stars
- ◆ 13 SCH – clock hours 390 (IBC – NCCER Safety Core, Osha 10, Tappesafe)
- ◆ CTS: Pneumatic / Hydraulic Apprentice renamed to Hydraulic and Pneumatic Technician (47.0303) 5 Star Revised to 25 SCH – 750 clock hours
- ◆ New CTS: Maintenance Helper (47.0303) 5 Star 31 SCH – 960 clock hours
- ◆ TD: Industrial Maintenance Technology (15.0613) 5 Star revised to 45 SCH – 1500 clock hours

### Deleted Courses

Courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

## 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 Award (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	Lab Hours	Class Hours	Class Hours	Class Hours
IMAMT 1110	Introduction to Industrial Maintenance Technology	1/0	1	15	
IMAMT 1111	Welding I	0/3	3	150	
IMAMT 1211	Material Handling	0/1	1	30	
<b>CTS - Welder Helper 2115</b>					
IMAMT 1112	Welding II	0/2	2	115	
IMAMT 1120	Blueprint Reading	2/0	2	30	
<b>TCA - Welder Helper 2115</b>					
IMAMT 1311	Pipelitting	0/2	2	60	
IMAMT 1410	Basic Electricity	1/0	1	30	
IMAMT 1411	Basic Electricity Lab	0/3	3	90	
<b>CTS - Electric Helper 2115</b>					
IMAMT 1220	Pneumatics	3/0	3	90	
IMAMT 1221	Pneumatics Application	0/2	2	85	
<b>CTS - Pneumatic/Hydraulic Apprentice</b>					
IMAMT 1230	Hydraulics	3/0	3	90	
IMAMT 1440	Programmable Logic Controllers	0/3	3	120	
IMAMT 1241	Hydraulics Troubleshooting Projects	0/2	3	150	
IMAMT 1320	Millwright I	3/0	3	90	
IMAMT 1321	Millwright Lab	0/2	2	150	

Revised March 2017

Effective August 2017

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

### Terminated:

- ◆ TCA – Welder Helper
- ◆ TCA – Fabrication Apprentice
- ◆ TCA – Electrical Helper
- ◆ TCA – Pneumatic Helper
- ◆ TCA – Hydraulic Helper
- ◆ TCA – Millwright Helper
- ◆ CTS – Millwright Apprentice

Renamed & Revised

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

# Proposed Curriculum Revisions

## Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

PAGE 2

## INDUSTRIAL MAINTENANCE TECHNOLOGY

Program Description & Curriculum

Course Number	Course Title	Prerequisites	Credits	Hours	Notes
IMMT 1330	Millwright II		2/0	2	90
IMMT 1331	Millwright II Lab		0/3	3	150
IMMT 1430	Motor Controls		0/4	4	135
IOBS 2450	Job Seeking Skills		2/0	2	30
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	Transition		0/3	3	135
IMMT 2999	Cooperative Education		0/3	3	135

*With approval from the chief academic officer/designee, the following requirements:*

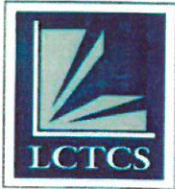
*TU – Industrial Maintenance Technology 45 1700*

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

### Terminated:

- ◆ TCA – Welder Helper
- ◆ TCA – Fabrication Apprentice
- ◆ TCA – Electrical Helper
- ◆ TCA – Pneumatic Helper
- ◆ TCA – Hydraulic Helper
- ◆ TCA – Millwright Helper
- ◆ CTS – Millwright Apprentice

Revised



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Culinary Arts (formerly Culinary Arts and Occupations)</b>		

<b>AWARD LEVEL(S)</b>	
For Board of Regents and LCTCS Review: <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"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	For LCTCS Review: <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Entry Level Prep Cook			
CIP: 12.0503	Credit Hours: 17	Contact Hours: 465	Award Level: CTS
Name: Production Cook			
CIP: 12.0402	Credit Hours: 32	Contact Hours: 930	Award Level: CTS
Name: Culinary Arts (Formerly Culinary Arts and Occupations)			
CIP: 12.0503	Credit Hours: 45	Contact Hours: 1350	Award Level: TD
Name: AAS in Culinary Arts (Formerly Culinary Arts and Occupations)			
CIP: 12.0503	Credit Hours: 60	Contact Hours: 1575	Award Level: AAS

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded



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

5 Stars     4 Stars     3 Stars     2 Stars     1 Star

ge 3

**TOTAL ALL  
COLUMNS**

Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

**IMPLEMENTATION DATE (Semester and Year)**

Fall 2018

**HISTORY OF PRIOR ACTIONS**

**Provide an overview of changes to this program.**

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

**JUSTIFICATION FOR THE PROPOSED CHANGE**

**Include support such as four-year university agreements, industry demand, advisory board information, etc.**

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

<input type="checkbox"/> Main Campus	<input checked="" type="checkbox"/> All Campuses	<input checked="" type="checkbox"/> Sites (list below)	<input type="checkbox"/> Distance Education
Site 1: Shreveport Campus - Shreveport, LA			
<b>QUALIFIED FACULTY</b> (Check all that apply)			
<input type="checkbox"/> Use Existing Faculty #: <u>1 full-time, 0 part-time</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____	
<b>MINIMUM CREDENTIALS REQUIRED FOR FACULTY</b>			
<b>Education:</b>	<b>Experience:</b>	<b>Certification:</b>	
<b>Education:</b>  Associates Degree minimum or equivalent college coursework	<b>Experience:</b> Documented work experience directly related to the course(s) being taught  Minimum of four years of related experience	<b>Certification:</b> Professional, nationally recognized, achievement-based certification OR  Licensure in the course(s) being taught	

<b>FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS</b>
Department: Business & Hospitality
<b>Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.</b>
The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

ANTICIPATED ENROLLMENT:					
Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>21</u>	<u>30</u>	<u>33</u>	<u>45</u>	<u>60</u>
<u>EVENING</u>			<u>15</u>	<u>20</u>	<u>25</u>
<u>DISTANCE EDUCATION</u>					

<p>Describe Process for Attaining &amp; Estimating Enrollment:</p>	<p>The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Evening track will begin in the 2<sup>nd</sup> or 3<sup>rd</sup> year. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.</p>
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<b>PROGRAM ACCREDITATION:</b>
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Is Program Accreditation, Licensure or Certification Required?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>	
Type/Name of Program Accreditation, Licensure or Certification Required:		

**PROGRAM CURRICULUM**  
 (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)

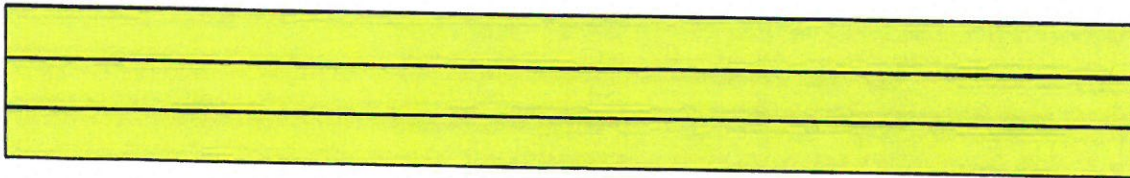
**See Attached Proposed Curriculum**

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours

**BENEFITS TO THE SYSTEM**

Discuss how this change will benefit your students, your community, and the LCTCS.





**BENEFITS TO THE SYSTEM**

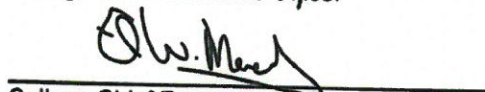
**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

NW/LTC Culinary Arts Program  
Proposed Program Curriculum Revision  
Effective 2018-2019

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
<b>1st Semester</b>								
8Wk	LEAD	1003	Work Readiness (H)	3	2	2	90	
	CPTR	1002	Computer Literacy and Applications (H)	3	2	2	90	
	CULN	1130	Sanitation and Safety	3	3	1	75	IBC: ServSafe
	CULN	1140	Introduction to Culinary Skills	3	3	1	75	
	CULN	1110	Culinary Math	3	3	1	75	
	CULN	1170	Essentials of Dining Service	2	2	1	60	
<b>1st Semester Totals</b>		IBC	<b>New Award: CTS - Entry Level Prep Cook</b>	<b>17</b>	<b>15</b>	<b>8</b>	<b>465</b>	<b>Eliminated TCA, Added new CTS - Entry Level Prep Cook</b>
<b>2nd Semester</b>								
8Wk	CULN	1160	Orientation to Culinary Hospitality Industry	3	3	1	75	
	CULN	1220	Nutrition	3	3	1	75	
	CULN	1240	Culinary Production for Dining Facilities	3	1	3	105	
8Wk	CULN	1243	Culinary Production for Dining Facilities II	3	1	3	105	
	CULN	1321	À la Carte	3	1	3	105	
<b>2nd Semester Total</b>				<b>15</b>	<b>9</b>	<b>11</b>	<b>465</b>	
<b>Award (2 Semesters)</b>								
			<b>CTS: Production Cook</b>	<b>32</b>	<b>24</b>	<b>19</b>	<b>930</b>	<b>1) Created new CTS: Entry-level Prep Cook 2) Revised courses in existing CTS - Production Cook 3) Revised course SCH, lec/lab contact combinations, 4) Added Options of Work-based Learning Experiences 5) Eliminated TCA 6) Added new courses</b>
<b>3rd Semester</b>								
8Wk	CULN	2310	Introduction to Baking and Pastry	4	2	4	150	
	CULN	2430	Food and Beverage Operations	3	2	2	90	
8Wk	CULN	2410	Regional Cuisine	3	2	2	90	
	CULN	2420	International Cuisine	3	2	2	90	Capstone Class
<b>3rd Semester Totals</b>				<b>13</b>	<b>6</b>	<b>10</b>	<b>420</b>	
<b>Award (3 Semesters)</b>								
			<b>Technical Diploma - Culinary Arts</b>	<b>45</b>	<b>32</b>	<b>29</b>	<b>1350</b>	<b>1) Renamed Technical Diploma 2) Revised course SCH, lec/lab contact combinations, 3) Added Options of Work-based Learning Experiences 4) Rename the AAS</b>
<b>4th Semester</b>								
8Wk	ENGL	1015	English Composition I	3	3	0	45	
	MATH	1015	College Algebra (or other approved college-level math)	3	3	0	45	*See advisor for options
	PSYC	2010	Introduction to Psychology (or other approved Social Science course)	3	3	0	45	
8Wk	PHSC	1015	Physical Science	3	3	0	45	
	SPCH	1015	Introduction to Public Speaking	3	3	0	45	
<b>4th Semester Totals</b>				<b>15</b>	<b>15</b>	<b>0</b>	<b>225</b>	
<b>Award (4 semesters)</b>								
			<b>AAS - Culinary Arts</b>	<b>60</b>	<b>47</b>	<b>29</b>	<b>1575</b>	<b>Ranamed AAS in Culinary Arts and Occupations to AAS in Culinary Arts</b>

With approval of Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements individually or in combination:

Rubric	Number	Course Title	SCH	Lec	Lab	Contact Hrs
<b>Experiential Learning Credit Course Options</b>						
CULN	2991	Special Project I	1	0	1	30
CULN	2993	Special Project II	2	0	2	60
CULN	2995	Special Project III	3	0	3	90
<b>New Work-Based Learning Experience Options</b>						
WBLE	1003	Internship / Cooperative Education	3	1	3	105
WBLE	1011	Work-Based Learning Experience	1	0	0	45*
WBLE	1012	Work-Based Learning Experience	2	0	0	90*
WBLE	1013	Work-Based Learning Experience	3	0	0	135*
WBLE	1014	Work-Based Learning Experience	4	0	0	180*
WBLE	1021	Work-Based Learning Experience II	1	0	0	45*
WBLE	1022	Work-Based Learning Experience II	2	0	0	90*
WBLE	1023	Work-Based Learning Experience II	3	0	0	135*
WBLE	1024	Work-Based Learning Experience II	4	0	0	180*
WBLE	2031	Work-Based Learning Experience III	1	0	0	45*
WBLE	2032	Work-Based Learning Experience III	2	0	0	90*
WBLE	2033	Work-Based Learning Experience III	3	0	0	135*
WBLE	2034	Work-Based Learning Experience III	4	0	0	180*
WBLE	2041	Work-Based Learning Experience III	1	0	0	45*
WBLE	2042	Work-Based Learning Experience III	2	0	0	90*
WBLE	2043	Work-Based Learning Experience III	3	0	0	135*
WBLE	2044	Work-Based Learning Experience III	4	0	0	180*

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes of the course must meet the standard of a minimum 45 contact or clock hours = 1 Semester Credit Hour

## Proposed Curriculum Revisions

- ◆ New CTS: Entry Level Prep Cook (12.0503) 4 Stars—17 SCH – clock hours 465
- ◆ CTS: Production Cook (12.0503) 4 Star Revised to 32 SCH – 930 clock hours
- ◆ TD: Culinary Arts and Occupations (12.0503) 4 Stars – Renamed TD in Culinary Arts - revised to 45 SCH – 1350 clock hours
- ◆ AAS in Culinary Arts and Occupations (12.0503) 4 Stars – re-named to AAS in Culinary Arts 60 SCH – 1575 clock hours

## Northwest Louisiana Technical College

### Culinary Arts and Occupations

#### Program Description & Curriculum

This program prepares students to work in service, production, fast foods, and baking areas of the food service industry. Program content includes American Culinary Federation information and guidelines for approved Chef training and accreditation.

#### Degrees/Certificates

Associate of Applied Science (AAS)

Technical Diploma (TD)

Certificate of Technical Studies (CTS)

Technical Competency Award (TCA)

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

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

Terminated:

- ◆ TCA – Entry Level Prep Cook III

Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
ORNT 1000	Freshman Seminar	1/0	1	15
CULN 1110	Culinary Math	2/1	3	75
CULN 1170	Essentials of Dining Room Service	1/1	2	60
CULN 1130	Sanitation & Safety	2/1	3	75
CULN 1140	Introduction to Culinary Skills	2/1	3	75
CULN 1160	Orientation to Culinary Hospitality Industry	2/1	3	75
CULN 1220	Nutrition	2/1	3	75
CULN 1240	Culinary Production for Dining Facilities	2/5	7	255
OPTR 1002	Computer Literacy and Applications	3/0	3	45
CULN 2310	Introduction to Baking and Pastry	2/3	5	165
CULN 1321	A La Carte	0/3	3	135
CULN 2430	Food & Beverage Operations	1/2	3	90
CULN 2410	Regional Cuisine	0/2	2	90
CULN 2420	International Cuisine	0/2	2	90
JOBS 2450	Job Seeking Skills	2/0	2	30
ENGL 1015	English Composition I	3/0	3	45
MATH 1015	College Algebra	3/0	3	45
PSYC 2010	Introduction to Psychology	3/0	3	45
PHSC 1015	Physical Science	3/0	3	45
SPCH 1015	Introduction to Public Speaking	0/2	2	45
Customer Service	Customer Service	3/0	3	45
Customer Service	Customer Service	3/0	3	45
Foundations of Entrepreneurship	Foundations of Entrepreneurship	3/0	3	45
Special Projects I	Special Projects I	0/1	1	30
Special Projects II	Special Projects II	0/2	2	60
Special Projects III	Special Projects III	0/3	3	90
Special Projects IV	Special Projects IV	3/0	3	45

Revised March 2014

### Deleted Courses

Courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

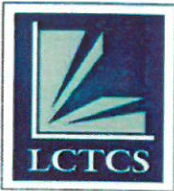
Renamed and revised

## Proposed Curriculum Revisions

CULN 2997	<del>Preparation</del>	<del>0/0</del>	<del>3</del>	<del>135</del>
CULN 2999	<del>Cooperative Education</del>	<del>0/0</del>	<del>3</del>	<del>135</del>

### Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced — Numbering Convention details attached.



## LOUISIANA'S COMMUNITY & TECHNICAL COLLEGE SYSTEM

### Requests for Programs: New, Modification, and Adoption

<b>TYPE OF PROPOSED CHANGE</b>		
<input type="checkbox"/> New Program	<input checked="" type="checkbox"/> Curriculum Modification	<input type="checkbox"/> Curriculum Adoption
Program Name: <b>Industrial Instrumentation and Electrical Technology (formerly Industrial Instrumentation Technology)</b>		

<b>AWARD LEVEL(S)</b>	
For Board of Regents and LCTCS Review: <input checked="" 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> <span style="background-color: lightblue; color: black;">                    </span> <input type="checkbox"/> Certificate of Applied Science (C.A.S.) <input type="checkbox"/> Certificate of General Studies (C.G.S.)	For LCTCS Review: <input checked="" type="checkbox"/> Technical Diploma (T.D.) <input checked="" type="checkbox"/> Career and Technical Certificate (C.T.C.) <input checked="" type="checkbox"/> Certificate of Technical Studies (C.T.S.)

Name: Industrial Helper			
CIP: 15.0404	Credit Hours: 12	Contact Hours: 390	Award Level: New CTC
Name: Installation Technician – Level I			
CIP: 15.0404	Credit Hours: 18	Contact Hours: 615	Award Level: New CTS
Name: Installation Technician – Level II			
CIP: 15.0404	Credit Hours: 24	Contact Hours: 795	Award Level: New CTS
Name: Installation Technician – Level III			
CIP: 15.0404	Credit Hours: 36	Contact Hours: 1215	Award Level: New CTS
Name: Industrial Instrumentation and Electrical Technician (formerly Industrial Instrumentation Technician)			

CIP: 15.0404	Credit Hours: 45	Contact Hours: 1500	Award Level: TD
Name: Industrial Instrumentation and Electrical Technology (formerly Industrial Instrumentation Technology)			
CIP: 15.0404	Credit Hours: 60	Contact Hours: 1725	Award: AAS

IBC	Issuing Body	Course Title	Course Prefix	Course Number	Credits Awarded
NCCER Safety Core	NCCER	Industrial Workplace Safety	WKSF	1003	3
OSHA 10	OSHA TappeSafe	Industrial Workplace Safety	WKSF	1003	3
TappeSafe		Industrial Workplace Safety	WKSF	1003	3
NCCER – Level I	NCCER	CNC II	IMFG	1263	3
		Electrical Power Theory and Practice II	IJET	1232	2
NCCER – Level II	NCCER	Industrial Electrical Power Theory II	IJET	1253	3
NCCER – Level III	NCCER	Instrumentation Process Measurement Theory and Practice II	IJET	2034	4
NCCER – Level IV	NCCER	Integrated Control Systems Troubleshooting	IJET	2063	3

**PROPOSED CHANGE**

a) For New Programs, state the purpose and objective; b) For Curriculum Modifications, state previous credit and clock hours; c) For Program Termination, state program and all award levels; d) For Curriculum Adoption, state the college from which curriculum is being adopted and the date it was approved by LCTCS.

**Program Revisions:**



Note: The requirements for and numbering of the General Education courses will be determined by the individual institutions in accordance with Master Course Articulation Matrix.

**IMPLEMENTATION DATE (Semester and Year)**      Fall 2018

**HISTORY OF PRIOR ACTIONS**

**Provide an overview of changes to this program.**

This program is difficult for faculty to implement and for students to navigate with excessive course choices and awards that have limited regional market value and represent limited employment exit points within the Northwest Louisiana region. In the past, numerous TCA's were added to demonstrate completion. The courses have been changed over time without utilizing a consistent lecture / Lab combination matrix for course offerings and scheduling consistency.

**JUSTIFICATION FOR THE PROPOSED CHANGE**

**Include support such as four-year university agreements, industry demand, advisory board information, etc.**

This proposal is based on input from multiple sources including feedback from Business and Industry partners, the Occupational Advisory Committee, the Northwest Louisiana Economic Partnership, the Webster Parish Economic and Education Collaborative, and the Louisiana Workforce Commission. The practices of sequencing courses over shorter 8 and 4 week terms within a semester, providing hybrid coursework, evening, weekend and block schedules have all been shown to be effective strategies to increase student success (time to completion, persistence and completion) as demonstrated by the research of Achieving the Dream and Complete College America. Fully developing pathways with on-ramps from Jumpstart (dual enrollment and articulation), Workforce (non-credit short term training and PLA), Work Ready U (adult basic education), and special populations (Veterans) provide added support for students and facilitate greater student success. Regional and Statewide labor market information demonstrates a continued need for the program emphasizing patient care in the Nursing field.

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

- 5 Stars
- 4 Stars
- 3 Stars
- 2 Stars
- 1 Star



SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION			
<input checked="" type="checkbox"/> Main Campus	<input type="checkbox"/> All Campuses	<input checked="" type="checkbox"/> Sites (list below)	<input type="checkbox"/> Distance Education
Site 1: Minden Campus – Minden, LA Site 2: Mansfield Campus – Mansfield, LA			
QUALIFIED FACULTY (Check all that apply)			
<input type="checkbox"/> Use Existing Faculty #: <u>5 full-time, 0 part-time</u>	<input type="checkbox"/> Hire Adjunct Faculty #: _____	<input type="checkbox"/> Hire Full-Time Faculty #: _____	
MINIMUM CREDENTIALS REQUIRED FOR FACULTY			
Education:	Experience:	Certification:	
<b>Education:</b>  Associates Degree minimum or equivalent college coursework	<b>Experience:</b> Documented work experience directly related to the course(s) being taught  Minimum of four years of related experience	<b>Certification:</b> Professional, nationally recognized, achievement-based certification OR  Licensure in the course(s) being taught	

**FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS**

Department: Industrial Technology

**Describe how this change will affect the administrative structure and/or allocation of departmental funds in terms of faculty, facilities, support, and any other resources.**

The affects expected as a result of these changes include increased enrollment, greater persistence and completion. The use of shorter terms within a semester will increase flexibility for student entry and exit. Serving more students who stay longer will require long term planning and forecasting for the most efficient use of faculty and facilities. As growth is experienced and program health is improved, additional adjunct and full-time faculty will likely be needed for the robust program.

**ANTICIPATED ENROLLMENT:**

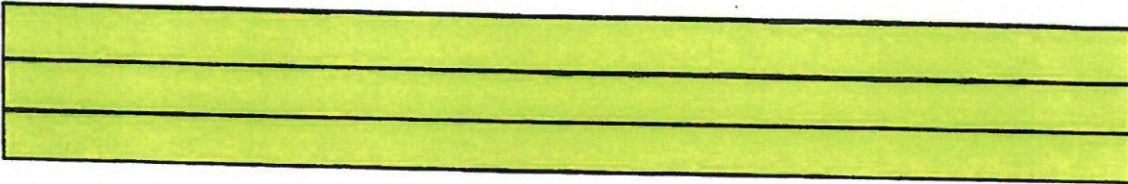
Students	Year One	Year Two	Year Three	Year Four	Year Five
<u>DAY</u>	<u>170</u>	<u>180</u>	<u>190</u>	<u>200</u>	<u>215</u>
<u>EVENING</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>40</u>
<u>DISTANCE EDUCATION</u>					

Describe Process for Attaining &amp; Estimating Enrollment:

The enrollment is based on estimates founded in the previous history of the program as indicated on the most recent Program Health Index. Growth is expected to occur in daytime and evening student enrollment. Daytime is expected to grow at a slower rate since the launch of the evening offerings may slightly diminish the daytime number. We expect to increase the overall enrollment initially with the working population the college has not been serving – those who need evening or weekend courses. The evening classes will be offered in sequenced block schedules but will not have students completing as quickly due to the contact hour requirements and subsequent part-time enrollment. Evening track will begin in the 2<sup>nd</sup> or 3<sup>rd</sup> year. Hybrid and web-enhanced curricular strategies will be utilized to improve students' ability to enroll in more hours, but NWLTC curriculum strength is the simulated work-based learning that takes place in the lab and during actual work-based experiences on the job. Evening enrollment will compound at a different rate due to students staying longer and as a result of part time enrollment. The current attrition is approximately 25% Fall to Fall. NWLTC persistence and completion are among the highest in the state and this results in the need to constantly recruit as students complete and are employed mostly on-time in less than 2 years. All of these factors were included in the estimates for enrollment shown above.

<b>PROGRAM ACCREDITATION:</b>	
<b>Is Program Accreditation, Licensure or Certification Required?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If YES, please provide projected accreditation/licensure/certification date: <b>2014 / 2019</b>
<b>Type/Name of Program Accreditation, Licensure or Certification Required:</b>	

<b>PROGRAM CURRICULUM</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)						
<b>See Attached Proposed Curriculum</b>						
<b>Subject Code</b>	<b>Course Number</b>	<b>Course Title</b>	<b>Lecture Hours</b>	<b>Lab Hours</b>	<b>Contact Hours</b>	<b>Credit Hours</b>



**BENEFITS TO THE SYSTEM**


**Discuss how this change will benefit your students, your community, and the LCTCS.**

These changes will provide highly skilled workers to fill high demand positions critical to the state of Louisiana and specifically in the Northwest region of the state. The program changes will address and provide solutions for employer challenges currently being cited that include both hard and soft skills among critical needs to support economic stability of the region and to facilitate growth. The communities served by NWLTC have a high occurrence of poverty and a high percentage receive financial aid. This program redesign will provide more efficient use of resources for the college and create an environment conducive to greater career and student success. This model is designed to help students complete in less time and attain employment quicker. The NWLTC on-ramps from the different student populations ensures NWLTC is able to meet the student where they are and in many cases provide them with a head-start on career and student success. Students will experience blocked courses with predictable schedules, needed courses available when they need them and a demonstrated value-add through their ability to secure employment.

**SIGNATURES:**

  
College Chief Academic Officer

3/20/2018  
Date

  
College Chief Executive Officer

3/23/18  
Date

NWLTC Industrial Instrumentation and Electrical Technology Program  
 Proposed Program Curriculum Revision  
 Effective 2018-2019

Semester	Rubric	No.	Course Title (H = Hybrid course)	SCH	Lec	Lab	Contact Hour	Comments
<b>1st Semester</b>								
BWk	LEAD	1003	Work Readiness (H)	3	2	2	90	
	WKSF	1003	Industrial Workplace Safety (H)	3	2	2	90	New Course: Embedded IBC's: NCCER Core, Osha 10, Tappe Safe
	IJET	1012	Industrial Tools & Calculations	2	2	1	60	
BWk	IJET	1022	Electrical Circuits Theory and Practice I	2	1	2	75	
	IJET	1032	Electrical Circuits Theory and Practice II	2	1	2	75	
			English	3	3	0	45	
<b>1st Semester Totals</b>	<b>IBC</b>		<b>CTC: Industrial Helper</b>	<b>15</b>	<b>11</b>	<b>9</b>	<b>435</b>	<b>Only Technical Coursework is required for CTC and CTS. Hours shown represent the semester totals including academic core classes. The CTC Industrial Helper requires: 12SCH / 8 Lec / 9 Lab / 390</b>
<b>2nd Semester</b>								
BWk	IJET	1212	Electronic Circuits - Theory and Practice	2	1	2	75	
	IJET	1222	Electrical Power Theory and Practice I	2	1	2	75	
	IJET	1232	Electrical Power Theory and Practice II	2	1	2	75	
<b>IBC</b>		<b>CTS: Installation Technician - Level I</b>					<b>Only Technical Coursework is required for CTC and CTS. Hours shown represent the semester totals including academic core classes. CTS: Installation Technician - Level I requires: 18 SCH / 11 Lec / 15 Lab / 615 contact hours. This award includes IBC: NCCER Industrial Instrumentation, Electrical - and Maintenance Level I</b>	
BWk	IJET	1243	Industrial Electrical Power Theory & Practice I	3	2	2	90	
	IJET	1253	Industrial Electrical Power Theory & Practice II	3	2	2	90	
			Physical Science	3	3	0	45	
<b>2nd Semester Total</b>				<b>15</b>	<b>10</b>	<b>10</b>	<b>450</b>	<b>Only Technical Coursework is required for CTC and CTS. Hours shown represent the semester totals including academic core classes. CTS: Installation Technician - Level II requires: 24 SCH / 15 Lec / 19 Lab / 795 contact hours. IBC: NCCER Industrial Instrumentation, Electrical and Maintenance Level Level 2</b>
<b>2 Semester Total</b>			<b>CTS: Installation Technician - Level II</b>	<b>30</b>	<b>21</b>	<b>19</b>	<b>885</b>	
<b>3rd Semester</b>								
BWk	IJET	2014	Control Systems - Theory and Practice	4	2	4	150	
			Intro to Psychology	3	3	0	45	
BWk	IJET	2024	Instrumentation Process Measurement Theory & Practice I	4	2	4	150	
	IJET	2034	Instrumentation Process Measurement Theory & Practice II	4	2	3	120	
<b>3rd Semester Totals</b> (3 SEMESTER Total)			<b>CTS: Installation Technician - Level III (Only Technical coursework required for CTS:</b>	<b>15</b>	<b>9</b>	<b>11</b>	<b>485</b>	<b>Only Technical Coursework is required for CTC and CTS. Hours shown represent the semester totals including academic core classes. CTS: Installation Technician - Level III requires: 36 SCH / 21 Lec / 30 Lab / 1215 contact hours. IBC: NCCER Industrial Instrumentation, Electrical - and Maintenance Level - Level 3</b>
<b>45</b>				<b>30</b>	<b>30</b>		<b>1350</b>	
<b>4th Semester</b>								
BWk	IJET	2043	Instrumentation Control Systems Theory & Practice I	3	1	2	105	
		2053	Instrumentation Control Systems Theory & Practice II	3	2	2	90	
IJET	2063	Capstone: Integrated Control Systems Troubleshooting	3	2	2	90		
		College Algebra	3	3	0	45		
		Speech	3	3	0	45		
<b>4th Semester Totals</b>				<b>15</b>	<b>11</b>	<b>6</b>	<b>375</b>	<b>IBC: NCCER Industrial Instrumentation, Electrical - and Maintenance Level 4</b>
<b>Award (4 Semesters)</b>			<b>*TD - Industrial Instrumentation &amp; Electrical Technician / AAS - Industrial Instrumentation &amp; Electrical Technology</b>	<b>60</b>	<b>41</b>	<b>36</b>	<b>1725</b>	<b>Only Technical Coursework is required for the TD. Hours shown represent the semester totals including academic core classes. TD: Industrial Instrumentation and Electrical Technician requires: 45 SCH / 26 /36 Lab/1500 contact hours: Students who successfully complete the academic core classes along with the technical coursework will receive the AAS at the same time as the TD. The AAS requires 60 SCH / 41 Lec / 36 Lab / 1725 contact hours.</b>

\*TD: Students who do not complete the academic core classes will receive the TD

With approval of Chief Academic Officer/designee, the following courses may be substituted for any of the above course requirements individually or in combination:

Experiential Learning Credit Course Options						
Rubric	Number	Course Title	SCH	Lec	Lab	Contact Hrs
IJET	2991	Special Project I	1		1	30
IJET	2993	Special Project II	2	0	2	60
IJET	2995	Special Project III	3	0	3	90
IJET	2996	Special Project IV	4		4	120

New Work-Based Learning Experience Options						
						EXT
WBLE	1003	Internship / Cooperative Education	3	1	3	105
WBLE	1011	Work-Based Learning Experience	1	0	0	45*
WBLE	1012	Work-Based Learning Experience	2	0	0	90*
WBLE	1013	Work-Based Learning Experience	3	0	0	135*
WBLE	1014	Work-Based Learning Experience	4	0	0	180*

WBLE	1021	Work-Based Learning Experience II	1	0	0	45*
WBLE	1022	Work-Based Learning Experience II	2	0	0	90*
WBLE	1023	Work-Based Learning Experience II	3	0	0	135*
WBLE	1024	Work-Based Learning Experience II	4	0	0	180*

WBLE	2031	Work-Based Learning Experience III	1	0	0	45*
WBLE	2032	Work-Based Learning Experience III	2	0	0	90*
WBLE	2033	Work-Based Learning Experience III	3	0	0	135*
WBLE	2034	Work-Based Learning Experience III	4	0	0	180*

WBLE	2041	Work-Based Learning Experience III	1	0	0	45*
WBLE	2042	Work-Based Learning Experience III	2	0	0	90*
WBLE	2043	Work-Based Learning Experience III	3	0	0	135*
WBLE	2044	Work-Based Learning Experience III	4	0	0	180*

\*All Work-Based Learning Experiences that involve external partners, locations and work assignments with an emphasis on skill building and meeting the student learning outcomes of the course must meet the standard of a minimum 45 contact or clock hours = 1 Semester Credit Hour

Work-based Learning Experiences may include: Live Work, Clinicals, Internships, Cooperatives, Practicums, and Apprenticeships.

## Proposed Curriculum Revisions

### Added:

- ◆ New CTC: Industrial Helper (15.0404) 5 Stars—12 SCH – clock hours 390
- ◆ New CTS: Installation Technician - Level I—18 SCH – clock hours 615
- ◆ New CTS: Installation Technician - Level II - 24 SCH – clock hours 795
- ◆ New CTS: Installation Technician - Level III—36 SCH – clock hours 1215
- ◆ Revised
- ◆ TD: Industrial Instrumentation Technician (15.0404) 5 Star renamed to Industrial Instrumentation and Electrical Technician and revise—45 SCH – 1500
- ◆ Rename AAS in Industrial Instrumentation Technology to AAS in Industrial Instrumentation and Electrical Technology and revise—60 SCH - 1725

## 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 Exam (TCE)

*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	
ETRN 1221	Basic Electronics	1/3	4	120	
ELEC 1440	Motor Controls	0/3	3	135	
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	
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 2941	Digital Control Systems	1/2	3	75	
<b>TD - Industrial Instrumentation Technician</b>				<b>45</b>	<b>1515</b>
<i>Transferable General Education Courses Required for AAS</i>					
ENGL 1015	English Composition	3/0	3	45	
MATH 1015	College Algebra	3/0	3	45	
PSYC 2015	Introduction to Psychology	3/0	3	45	
PHSC 1015	Physical Science I	3/0	3	45	

Revised March 2017

Effective August 2017

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart

#### Terminated:

- ◆ TCA – Electrician Helper
- ◆ TCA – Electronic Repair
- ◆ CTS – E/I Helper

#### Renamed & Revised

Deleted Courses  
 Courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

\* Work-based Learning Experience courses may be substituted for a course within this program and may be used to formalize an apprenticeship or extended clinical experience when initiated in a employer—college formalized agreement. See the Chief Academic Officer for course options and approval process.

# Proposed Curriculum Revisions

## Deleted Courses

All courses were removed, redesigned and renumbered using the NWLTC Numbering Convention for student friendly programs with courses clearly sequenced—Numbering Convention details attached.

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## INDUSTRIAL INSTRUMENTATION TECHNOLOGY Program Description & Curriculum

SPCH 1015	Introduction to Public Specification	3/0	2	45
<b>Optional Electives</b>				
<del>CSRV 2000</del>	<del>Customer Service</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<del>CSRV 2000</del>	<del>Customer Service &amp; Foundations of Entrepreneurship</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<del>ENTP 1000</del>	<del>Foundations of Entrepreneurship</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<i>Note: Approval from the Chief Academic Officer/Designee for following courses may be substituted for any of the above course requirements.</i>				
<del>INST 2991</del>	<del>Special Projects I</del>	<del>0/1</del>	<del>1</del>	<del>30</del>
<del>INST 2993</del>	<del>Special Projects II</del>	<del>0/2</del>	<del>2</del>	<del>60</del>
<del>INST 2995</del>	<del>Special Projects III</del>	<del>0/3</del>	<del>3</del>	<del>90</del>
<del>INST 2996</del>	<del>Special Projects IV</del>	<del>3/0</del>	<del>3</del>	<del>45</del>
<del>INST 2997</del>	<del>Special Projects</del>	<del>0/3</del>	<del>3</del>	<del>45</del>
<del>INST 2998</del>	<del>cooperative Education</del>	<del>0/3</del>	<del>3</del>	<del>135</del>

Revised & Renamed

All courses changed credits and related clock hours based on NWLTC SCH-Contact Hour Conversions Chart