LOUISIANA COMMUNITY & TECHNICAL COLLEGE SYSTEM

APPROVED
6/10/20
LCTCS BOARD OF SUPERVISORS

TO: Dr. Monty Sullivan
LCTCS President

THROUGH: Dr. René Cintrón
Chief Education and Training Officer

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

DATE: May 25, 2020

SUBJECT: Program Requests at Nunez Community College

FOR BOARD ACTION:

Recommendation: Staff recommends the Board approve the following program requests listed below.

Program Additions

1. Technical Diploma (TD), Instrumentation and Electrical Technical (CIP 15.0404) – **4 STARS**
    a. Certificate of Technical Studies (CTS), Instrumentation Advanced (CIP 15.0404) – **4 STARS**
    b. Certificate of Technical Studies (CTS), Instrumentation Helper (CIP 15.0404) – **4 STARS**
        i. Career and Technical Certificate (CTC), Instrumentation Skills CTC (CIP 15.0404) with IBCs in NCCER Core, Electrical I and II, Instrumentation I, II, III, IV from the National Center for Construction Education and Construction Research– **4 STARS**
2. Certificate of Technical Studies (CTS), Cloud Computing Foundation (CIP 11.0902) – **5 STARS**
3. Career and Technical Certificate (CTC), Advanced Heating, Ventilation, and Air Conditioning with Industry Based Credentials in the National Center for Construction Education & Research (NCCER) HVAC Levels 3 and 4 (CIP 47.0201) – **5 STARS**

Background: Nunez Community College (NCC) is seeking approval to add an Instrumentation and Electrical program. This program is being established in response to industry demand. It has been developed with multiple exit points allowing students to gain skills and enter the workforce quickly or to gain advancing levels of skills while progressing through the curriculum.

Nunez Community College (NCC) is seeking approval to add a certificate in Amazon Web Services (AWS) which will allow students to develop entry-level skills in networking and cloud computing. This program is consistent with the statewide development of AWS programs from the LCTCS Cloud Computing taskforce.

Nunez Community College (NCC) is seeking approval to add a Career and Technical Certificate (CTC) in Advanced Heating, Ventilation, and Air Conditioning that will allow students to develop advanced skills and certifications leading to employment.

Fiscal Impact: The administrative structure will not change. There are no anticipated expenditures associated with these additions unless otherwise noted.

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

Benefits to the System: These requests will allow Nunez to better meet student and workforce needs.

_____ _____

Approved **Date**
Dr. Monty Sullivan

NUNEZ COMMUNITY COLLEGE

INSTRUMENTATION SKILLS
CAREER AND TECHNICAL CERTIFICATION

This program is designed for a trainee to obtain NCCER Certification in CORE and Instrumentatio Level 1. Once a trainee completes this program, he/she will have knowledge of the basic skills of Instrumentation.

NAME:			
	Last	First	Middle
Student ID Number:			**Catalog 2020 - 2021**

Course No.	Course Title	Substitute or Transfer Course	College	Hrs	Grade
11 Hours of Required Courses. Must earn a grade of "C" or better.					
CNST 1000	Introduction to Construction (CORE)			5	
INST 1010	NCCER Instrumentation Level 1			6	
CTC – NCCER Instrumentation **NCCER Certifications** – ***CORE, Instrumentation Level 1***					

Total: 11

Program Learning Outcomes:

1. **Instrument Drawings** - - Read and interpret instrument drawings while understanding control logic and fundamental electrical circuit theory.
2. **Troubleshooting and Calibration Skills** - Perform basic troubleshooting and calibration skills necessary for entry level instrumentation positions along with demonstrating understanding of safety hazards and procedures associated with industrial process control.
3. **Identify Industrial Equipment** - Identify typical industrial equipment and interface sensors with automatic controls.

NUNEZ COMMUNITY COLLEGE

INSTRUMENTATION HELPER

CERTIFICATE OF TECHNICAL STUDIES

This program is designed for a trainee to obtain NCCER Certification in CORE and Instrumentation Level 1 & Level 2. Once a trainee completes this program, he/she will have knowledge of the basic skills of Instrumentation to become an Instrumentation Helper in the field.

NAME:			
	Last	First	Middle
Student ID Number:			**Catalog 2020 - 2021**

Course No.	Course Title	Substitute or Transfer Course	College	Hrs	Grade
19 Hours of Required Courses. Must earn a grade of "C" or better.				Hrs	Grade
CNST 1000	Introduction to Construction (CORE)			5	
INST 1010	NCCER Instrumentation Level 1			6	
INST 1020	NCCER Instrumentation Level 2			8	
CTS – NCCER Instrumentation **NCCER Certifications –** ***CORE, Instrumentation Level 1 & Level 2***					

Total: 19

Exit Advisor's Signature **Date** **Dean's Signature** **Date**

Program Learning Outcomes:

1. Describe the process of measuring temperature and flow
2. Describe the cleaning and purging process and the methods used to complete the task.
3. Describe the piping and tubing testing process and explain how it is accomplished.
4. Describe the operation of electrical heat tracing and explain how it is installed.

NUNEZ COMMUNITY COLLEGE

NCCER INSTRUMENTATION - ADVANCED
CERTIFICATE OF TECHNICAL STUDIES

NAME:			
	Last	First	Middle
Student ID Number:			**Catalog 2020 - 2021**

Course No.	Course Title	Substitute or Transfer Course	College	Hrs	Grade
16 Hours of Required Courses. Must earn a grade of "C" or better.					
INST 1030	NCCER Instrumentation Level 3			8	
INST 1040	NCCER Instrumentation Level 4			8	
CTS – NCCER Instrumentation – Advanced ***NCCER Certifications – Instrumentation Level 3 & Level 4***					

Total: 16

Exit Advisor's Signature **Date** **Dean's Signature** **Date**

Program Learning Outcomes:

1. Inspect loop components and perform continuity checks prior to proving the loop
2. Understand the function of tuning and basic proportional control concepts.
3. Knowledge of the basic concepts and elements of digital logic circuits
4. Knowledge of the function of various PLC hardware components.
5. Describe common considerations for the maintenance of DCS technology.
6. Identify and describe various types of control valves, actuators, and positioners.
7. Identify various transducer types and explain how they operate
8. Identify various detectors and explain how they operate.
9. Describe direct-current power supplies and testing methods.
10. Identify and describe the operation of various types of relays and timers
11. Identify and describe various types of instrumentation cable and their related terminal hardware.

Instrumentation and Electrical Technician - 05/12/2020

TYPE OF PROPOSED CHANGE : New Program

PROGRAM NAME : Instrumentation and Electrical Technician

AWARD LEVEL(S)

For Board of Regents and LCTCS Review:	For LCTCS Review:
Name:	Technical Diploma (T.D.) Certificate of Technical Studies (C.T.S.) Career and Technical Certificate (C.T.C) TCA - For Archive Purpose Only

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

Stars : 4 Stars

Name: Instrumentation and Electrical Technician **Program Delivery Mode:**

CIP: 154 **Credit Hours:** 49.00 **Contact Hours:** 1975.00 Technical Diploma (T.D.)

IBC: NCCER Electrical Level 1	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER Electrical Level 1	**Course Prefix:** ELEC	**Course Number:** 1010	**Credits Awarded:** 6.00	**IBC Awarded upon Completion? :** No-Test is Required
IBC: NCCER Electrical Level 2	**Issuing Body:** National Center for Construction Education and Research	**Course Title:**	**Course Prefix:** ELEC	**Course Number:** 1020	**Credits Awarded:** 8.00	**IBC Awarded upon Completion? :** No-Test is Required

Name: **Program Delivery Mode:**

CIP: **Credit Hours:** 0.00 **Contact Hours:** 0.00 Technical Diploma (T.D.)

Stars : 4 Stars

Name: Instrumentation Helper **Program Delivery Mode:** Standard

CIP: 150404	**Credit Hours:** 19.00		**Contact Hours:** 975.00		Certificate of Technical Studies (C.T.S.)	
IBC: NCCER Core	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** Introduction to Corruption	**Course Prefix:** CONST	**Course Number:** 1000	**Credits Awarded:** 5.00	**IBC Awarded upon Completion?:** No-Test is Required
IBC: NCCER Instrumentation Level 1	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER Instrumentation 1	**Course Prefix:** INST	**Course Number:** 1010	**Credits Awarded:** 6.00	**IBC Awarded upon Completion?:** No-Test is Required
IBC: NCCER Instrumentation Level 2	**Issuing Body:** National Center for Construction Education and Research	**Course Title:**	**Course Prefix:** INST	**Course Number:** 1020	**Credits Awarded:** 8.00	**IBC Awarded upon Completion?:**
Name: Advanced Instrumentation Technician					**Program Delivery Mode:**	
CIP: 150404	**Credit Hours:** 16.00		**Contact Hours:** 850.00		Certificate of Technical Studies (C.T.S.)	
IBC: NCCER Instrumentation Level 3	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER Instrumentation Level 3	**Course Prefix:** INST	**Course Number:** 1030	**Credits Awarded:** 8.00	**IBC Awarded upon Completion?:** No-Test is Required
IBC: NCCER Instrumentation Level 4	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER Instrumentation Level 4	**Course Prefix:** INST	**Course Number:** 1040	**Credits Awarded:** 8.00	**IBC Awarded upon Completion?:** No-Test is Required
Stars : 4 Stars						
Name: Instrumentation Skills					**Program Delivery Mode:**	
CIP: 150404	**Credit Hours:** 11.00		**Contact Hours:** 225.00		Career and Technical Certificate (C.T.C)	
IBC: NCCER CORE	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** Introduction to Construction	**Course Prefix:** CONST	**Course Number:** 1000	**Credits Awarded:** 5.00	**IBC Awarded upon Completion?:** No-Test is Required

IBC:	Issuing Body:	Course Title:	Course Prefix:	Course Number:	Credits Awarded:	IBC Awarded upon Completion?:
	National Center for Construction Education and Research		NCCER Instrumentation 1	INST 1010	6.00	

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.

This program is being established in response to industry demand. It has been developed with multiple exit points allowing students to gain skills and enter the workforce quickly or to gain advancing levels of skills while progressing through the curriculum. Instrumentation technicians are needed in the industry

IMPLEMENTATION DATE (Semester and Year)	Fall 2020	Or upon approval

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

This is a new program developed with industry input and based on NCCER training levels and curriculum

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

This program meets the needs Industry and allows for increasing levels of expertise that students can achieve as they progress through the levels of credentials. The program was developed with industry partners to meet their workforce needs. This program was initially proposed through the craft skills advisory board and will be taught in collaboration with non-credit training. The Occupational Outlook Handbook reports median salary for this career at $58, 350.

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION: Main Campus

QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty: Yes	Hire Adjunct Faculty: Yes	Hire Full-Time Faculty: No
# - Full Time: 1	# - 2	# - 0
# - Part Time: 1		

ADMINISTRATION and IMPLEMENTATION COSTS

Department :

How will this change affect the administrative structure and/or allocation of departmental funds in terms of:		
Faculty :	**Facilities :**	**Library Resources :**
Support :	**Related Fields :**	**Other :**

MINIMUM CREDENTIALS REQUIRED FOR FACULTY		
Education: Associate Degree, Technical Diploma or Certificate and extensive experience	**Experience:** 3 years	**Certification:** NCCER Certification or eligibility

FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS

Department : Career and Technical Education

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.

This program will be part of the Carer and Technical Division and will share faculty with the existing Electrical and PTEC program. The equipment required for program instruction was obtained by the college for non-credit workforce training and will be used in collaboration with this credit program

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
DAY		12	15	15	18
EVENING	15	15	22	25	30
DISTANCE EDUCATION					

Describe Process for Attaining & Estimating Enrollment:	The program will begin with an evening cohort. In year two a daytime cohort will be added. Modest growth is predicted for the following years. The program will be taught in collaboration with non-credit workforce training.

PROGRAM ACCREDITATION:

Is Program Accreditation, Licensure or Certification Required?	No **Accreditation status:** N/A
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)

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. Note if any special requirements, such as internships, are part of the curriculum. List all embedded IBCs. If you are adopting curriculum, you do not need to complete this section.

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours	Clinical Hours
Program, Degree or Concentration:					**Credit Hours:** 0.00		

BENEFITS TO THE SYSTEM

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

Students who enter this program will develop in-demand skills that lead to high skill, high need careers. This program develops the workforce to support industry partners and was developed based on partner input and used the existing NCCER curriculum and leads to certification.

KEYWORDS

instrumentation
electrical instrumentation
NCCER

NUNEZ COMMUNITY COLLEGE

NCCER INSTRUMENTATION and ELECTRICAL TECHNICAL DIPLOMA

NAME:			
	Last	First	Middle
Student ID Number:			**Catalog 2020 - 2021**

Course No.	Course Title	Substitute or Transfer Course	College	Hrs	Grade
49 Hours of Required Courses. Must earn a grade of "C" or better.				Hrs	Grade
First Semester					
CNST 1000	Introduction to Construction (CORE)			5	
INST 1010	NCCER Instrumentation Level 1			6	
ELEC 1000	NCCER Electrical Level 1			6	
CTC - Electrical and Instrumentation **NCCER Certification(s)** – ***CORE, Electrical Level 1, Instrumentation Level 1***			TOTAL	17	
Second Semester					
INST 1020	NCCER Instrumentation Level 2			8	
ELEC 1010	NCCER Electrical Level 2			8	
CTS – Electrical and Instrumentation **NCCER Certification(s)** – ***Electrical Level 2, Instrumentation Level 2***			TOTAL	16	
Third Semester					
INST 1030	NCCER Instrumentation Level 3			8	
NCCER Certification(s) –***Instrumentation Level 3***			TOTAL	8	
Fourth Semester					
INST 1040	NCCER Instrumentation Level 4			8	
Technical Diploma – Instrumentation and Electrical **NCCER Certification(s)** – ***Instrumentation Level 4***			TOTAL	8	

Total: 49

Exit Advisor's Signature **Date** **Dean's Signature** **Date**

Program Learning Outcomes:

1. **Instrument Drawings** - Read and interpret instrument drawings while understanding control logic and fundamental electrical circuit theory.
2. **Troubleshooting and Calibration Skills** - Perform basic troubleshooting and calibration skills necessary for entry level instrumentation positions along with demonstrating understanding of safety hazards and procedures associated with industrial process control.
3. **Identify Industrial Equipment** - Identify typical industrial equipment and interface sensors with automatic controls.

CTS Checkout Audit

Course Number	Course Title	Pre-Requisites/ Co-Requisites	Credit Hours
AZWS 1001	Introduction to Information Technology	AZWS 1002 Introduction to Information Technology - PC Hardware and Software Lab	3
AZWS 1002	Introduction to Information Technology - PC Hardware and Software Lab	AZWS 1001 Introduction to Information Technology	3
AZWS 1004	Introduction to Programming and Scripting	None	3
AZWS 1023	Introduction to Networking	AZWS 1001 Intoduction to Information Technology AZWS 1002 Introduction to Information Technology - Hardware and Software Lab	3
AZWS 1027	Windows Client Server 1	AZWS 1001 Introduction to Information Technology AZWS 1002 Introduction to Information Technology - Hardware and Software Lab AZWS 1023 Introduction to Networking	3
AZWS 1030	Linux Desktop and Server Operating System	AZWS 1023 Introduction to Networking AZWS 1027 Windows Client Server 1	3
AZWS 1033	Intermediate Networking	AZWS 1023 Introduction to Networking	3
AZWS 1037	Windows Client Server 2	AZWS 1023 Intrroduction to Networking AZWS 1027 Windows Client Server 1	3

AZWS 1045	Introduction to Securit	AZWS 1030 Linux Desktop and Server Operating System AZWS 1033 Intermediate Networking AZWS 1037 Windows Client Server 2	3
Total Credit Hours Needed			**27**

Amazon Web Services Foundation - 05/12/2020

TYPE OF PROPOSED CHANGE : New Program

PROGRAM NAME : Amazon Web Services Foundation

AWARD LEVEL(S)

For Board of Regents and LCTCS Review:	For LCTCS Review:
Name:	Technical Diploma (T.D.) Certificate of Technical Studies (C.T.S.) Career and Technical Certificate (C.T.C) TCA - For Archive Purpose Only

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

Stars : 5 Stars

Name: Amazon Web Services Foundation **Program Delivery Mode:** Hybrid

CIP: 110901	**Credit Hours:** 27.00	**Contact Hours:** 3040.00	Certificate of Technical Studies (C.T.S.)

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.

This certificate allows students to develop entry-level skills in AWS systems, including basic concepts of networking and cloud computing. This program is consistent with the statewide development of AWS programs from the LCTCS Cloud Computing taskforce.

IMPLEMENTATION DATE (Semester and Year)	Fall 2020	Or upon approval

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

This program was developed with the LCTCS Cloud Computing taskforce in response to the need for workforce development from the state of Louisiana in collaboration with Amazon.

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

This program ensures students develop in-demand skills especially important for the current climate. Students who complete this program will have marketable skills in networking and cloud computing and will be ready to enter the workforce.

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION:

QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty: No **# - Full Time:** 1 **# - Part Time:** 0	**Hire Adjunct Faculty:** No **# -** 2	**Hire Full-Time Faculty:** No **# -** 0

ADMINISTRATION and IMPLEMENTATION COSTS

Department :

How will this change affect the administrative structure and/or allocation of departmental funds in terms of:

Faculty :	**Facilities :**	**Library Resources :**
Support :	**Related Fields :**	**Other :**

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education: Masters preferred	**Experience:** 3 years	**Certification:**

FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS

Department : Career and Technical Education

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.

This program will use an existing faculty member who will transition to this program from other coursework. Adjunct faculty with expertise in the required coursework will be hired adjunct as those courses come up in the rotation. Amazon has provided access to the required virtual resources for the program that will be used for instruction.

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five

DAY	12	12	15	18	22
EVENING					
DISTANCE EDUCATION	15	18	22	28	30

Describe Process for Attaining & Estimating Enrollment:	Nunez has submitted to SACSCOC for approval to deliver 100% online programs and upon approval, this program will be offered online. Additionally, we anticipate on campus and hybrid instruction for coursework. We anticipate a cohort of on-campus students and distance education in the first year and anticipate moderate growth in the following years.

PROGRAM ACCREDITATION:

Is Program Accreditation, Licensure or Certification Required?	No **Accreditation status:**
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)

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. Note if any special requirements, such as internships, are part of the curriculum. List all embedded IBCs. If you are adopting curriculum, you do not need to complete this section.

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours	Clinical Hours
Program, Degree or Concentration:					**Credit Hours:** 0.00		

BENEFITS TO THE SYSTEM

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

In the current climate, skills in cloud computing are sought after and give students in-demand skills for the current workforce. This program is also part of fulfilling Louisiana's commitment to providing cloud computing workforce training across the state.

KEYWORDS

Computer networking
cloud computing
AWS
web services

Certificate of Technical Studies
Advanced Heating, Ventilation, and Air Conditioning

Student ID #			**Catalog 2019-2020**	
Name:				
	Last	**First**	**Middle**	**Advisor**

18 hours of major courses. Must earn a grade of C or better.

Course #	Course Title:	Subsititute or Transfer Course:	College:	Hrs:	Grade:
HVAC 2100	NCCER HVAC Level 3			7	
HVAC 2200	NCCER HVAC Level 4			7	
			Total Hours:	14	

The Advanced Heating, Ventilation, and Air Conditioning program prepares students for commercial construction. Upon successful completion, students will achieve level III and IV NCCER Certification.

Exit Advisor's Signature Date	**Dean's Signature Date:**

Advanced Heating, Ventilation and Air Conditioning - 01/28/2020

TYPE OF PROPOSED CHANGE : New Program

PROGRAM NAME : Advanced Heating, Ventilation and Air Conditioning

AWARD LEVEL(S)

For Board of Regents and LCTCS Review:	For LCTCS Review:
Name:	Technical Diploma (T.D.) Certificate of Technical Studies (C.T.S.) Career and Technical Certificate (C.T.C) TCA - For Archive Purpose Only

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

Stars : 5 Stars

Name: Advanced Heating, Ventilation and Air Conditioning **Program Delivery Mode:** Standard

CIP: 40201 **Credit Hours:** 14.00 **Contact Hours:** 325.00 Certificate of Technical Studies (C.T.S.)

IBC: NCCER HVAC Level 3	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER HVAC Level 3	**Course Prefix:** HVAC	**Course Number:** 2100	**Credits Awarded:** 7.00	**IBC Awarded upon Completion? :** No-Test is Required
IBC: NCCER HVAC Level 4	**Issuing Body:** National Center for Construction Education and Research	**Course Title:** NCCER HVAC Level 4	**Course Prefix:** HVAC	**Course Number:** 2200	**Credits Awarded:** 7.00	**IBC Awarded upon Completion? :** No-Test is Required

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.

This certificate allows students to continue to develop advanced skills and certifications in HVAC to qualify for more advanced positions and to develop skills needed for HVAC work in industrial and commercial settings.

IMPLEMENTATION DATE (Semester and Year)	Spring 2020	Or upon approval

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

This is a new program that will allow students to earn a second credential specific to HVAC after completing basic skills in the existing HVAC certificate offered at Nunez.

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

This is a new program that will allow students to earn a second credential specific to HVAC after completing basic skills in the existing HVAC certificate offered at Nunez. A search of Louisiana Star Jobs on Jan. 28th showed 132 vacancies for HVAC technicians in the area, demonstrating a strong job demand. Additionally, employers through advisory boards for skilled trades programs have shared that students with HVAC skills for industrial and commercial settings are needed in industry and would be likely to be hired or promoted.

SITE(S) OF NEW PROGRAM OR CURRICULUM MODIFICATION:

QUALIFIED FACULTY (Check all that apply)

Use Existing Faculty: No **# - Full Time:** 1 **# - Part Time:** 3	**Hire Adjunct Faculty:** No **# -** 0	**Hire Full-Time Faculty:** No **# -** 0

ADMINISTRATION and IMPLEMENTATION COSTS

Department :

How will this change affect the administrative structure and/or allocation of departmental funds in terms of:

Faculty :	**Facilities :**	**Library Resources :**
Support :	**Related Fields :**	**Other :**

MINIMUM CREDENTIALS REQUIRED FOR FACULTY

Education: Associate Degree	**Experience:** 3 years	**Certification:** NCCER Certification preferred, NCCER Instructor certification

FISCAL IMPACT: ADMINISTRATION and IMPLEMENTATION COSTS

Department : Technical Programs

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 effect will be minimal. These courses have been taught as special topic and the addition of this certificate will allow for a clearer pathway for students. The existing faculty will serve as instructors.

ANTICIPATED ENROLLMENT:

Students	Year One	Year Two	Year Three	Year Four	Year Five
DAY	7	10	12	15	24
EVENING	10	12	15	18	28
DISTANCE EDUCATION					

Describe Process for Attaining & Estimating Enrollment:	

PROGRAM ACCREDITATION:

Is Program Accreditation, Licensure or Certification Required?	No **Accreditation status:** N/A
Type/Name of Program Accreditation, Licensure or Certification Required:	

DESCRIBE IMPLEMENTATION COSTS (Include Faculty, Facilities, Library Resources, etc.)

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. Note if any special requirements, such as internships, are part of the curriculum. List all embedded IBCs. If you are adopting curriculum, you do not need to complete this section.

Subject Code	Course Number	Course Title	Lecture Hours	Lab Hours	Contact Hours	Credit Hours	Clinical Hours
Program, Degree or Concentration: Advanced Heating, Ventilation and Air Conditioning					**Credit Hours:** 14.00		

HVAC	2100	NCCER HVAC Level 3	3.00	4.00	167.50	7.00	0.00
Semester:					**Credit Hours:**		
HVAC	2200	NCCER HVAC Level 4	3.00	4.00	157.50	7.00	0.00

BENEFITS TO THE SYSTEM

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

This certificate prepares students for jobs and advancement in careers by developing advanced HVAC skills and allowing students to build HVAC skills related to industrial and commercial settings. These well-paid positions are available and industry has expressed a need for this training. Students who are working on these skills prior to employment will benefit, as will working students looking for career advancement. Embedded NCCER certifications allow students to earn nationally recognized credentials, making them more employable.

KEYWORDS

HVAC
Heating
Ventilation
Air Conditioning
construction
NCCER