

Mechanic and Repair Technology

Overview

The Fast Forward Mechanic and Repair Technology (CIP 47) pathway has five Associate Degree opportunities through Nunez Community College, Northshore Technical Community College, and South Louisiana Community College.

This pathway generally prepares individuals to apply technical knowledge and skills in the adjustment, maintenance, part replacement, and repair of tools, equipment, and machines.

Guidance Overview

This guidance is meant to help school systems and parents navigate the opportunities to complete an Associate Degree in high school. School systems should verify information with the post-secondary institution to ensure students are enrolled in the appropriate college classes to earn the associates degree.

This guidance includes:

- [Post-Secondary Degree Paths](#) details all courses required for the Applied Associate Degree. The Applied Associate Degree has limited general education courses and is primarily designed to prepare students for immediate employment or career entry.
- [Secondary Courses not included in the Post-Secondary Program of Study](#) detail all courses the student must take prior to or in tandem with the college courses to meet secondary graduation requirements. Typically, these are courses students are scheduled to take in grades 9 and 10.
- [Capstone Credentials](#) details all Industry Based Certifications a student can receive to complete the Applied Associate Degree. Students working towards a Jump Start Diploma must complete at least one capstone credential to graduate.
- [High School Transcription](#) details the LDOE course code a counselor should use to transcribe the college courses that do not have a dedicated LDOE course code.

Post-Secondary Degree Paths Approved by BESE for Fast Forward

- **Nunez Community College:**
[Associate of Applied Science: Heating, Air Conditioning, and Refrigeration](#)
- **Northshore Technical Community College and Southeastern Louisiana University:**
[Associate of Applied Science: Technical Studies Concentration in Building Technology Specialist](#)
- **South Louisiana Community College:**
[Associate of Applied Science: Technical Studies in Automotive Technology](#)
[Associate of Applied Science: Technical Studies in Industrial Marine Electronics](#)
[Associate of Applied Science: Technical Studies Heating, Air Conditioning, and Refrigeration](#)



Post-Secondary Degree Paths

Nunez Community College: Associate of Applied Science: Heating, Air Conditioning, and Refrigeration

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition I	ENGL 1010	English IV: DE - CENL 1013 English Composition I	120606
College Algebra	MATH 1300	Algebra III: DE - CMAT 1213 College Algebra	160500
General Chemistry I	CHEM 1100 or	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Art Appreciation	FIAR 1200	Fine Arts Survey: DE - CART 1023 Introduction to Visual Arts	030592
Introduction to Psychology	PSYC 1100	Psychology: DE - CPSY 2013 Intro to Psychology	225011
HVAC Introduction	HACR 1150		
Principles of Refrigeration I	HACR 1160		
Principles of Refrigeration II	HACR 1170		
Principles of Refrigeration III	HACR 1180		
Electrical Fundamentals	HACR 1210		
Electrical Components	HACR 1220		
Electric Motors	HACR 1230		
Applied Electricity and Troubleshooting	HACR 1240		
Natural Science Elective	TBD by Course Selected		
Residential Central A/C	HACR 2510		
Residential Central A/C II	HACR 2520		
Residential System Design	HACR 2530		
Residential Heating	HACR 2540		
Humanities Elective	TBD by Course Selected		
Behavioral Science Elective	TBD by Course Selected		
Residential Heat Pumps	HACR 2560		
Domestic Refrigeration	HACR 1410		
Room Air Conditioners	HACR 1420		
Job Readiness Skills	INDT 2900		

Post-Secondary Degree Paths

Northshore Technical Community College and Southeastern Louisiana University: Associate of Applied Science: Technical Studies Concentration in Building Technology Specialist

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition I	ENGL 1015	English IV: DE - CENL 1023 English Composition II	120606
College Algebra Fundamentals	MATH 1005	Algebra III: DE - CMAT 1213 College Algebra	160500
Introduction to Biology I	BIOL 1010	Biology II: DE - CBIO 1013 General Biology I	150323
American History I	HIST 2010	US History: DE - CHIS 2013 American History I	220407
Introduction to Psychology	PSYC 2015	Psychology: DE - CPSY 2013 Introduction to Psychology	225011
College Success	CSSD 1000		
Hand/Power Tools	BLDG 1150		
Introduction & Safety	BLDG 1110		
Carpentry	BLDG 1210		
Applied Building Technology Math	BLDG 1120		
Electricity	BLDG 1310		
Plumbing	BLDG 1410		
Communication & Emp Skills	BLDG 1130		
Masonry/Ceramic Tile	BLDG 1220		
Cabinetmaking	BLDG 1420		
Job Seeking Skills	JOBS 2450		
Blueprint Reading	BLDG 1140		
Introduction to Computers	CPTR 1000		

Post-Secondary Degree Paths

South Louisiana Community College: Associate of Applied Science: Technical Studies in Automotive Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Rhetoric & Composition	ENGL 1010	English III: DE - CENL 1013 English Composition I	120601
American National Government	POLI 1100	US Government: DE - CPOL 2013 Intro to American Government	220514
College Algebra	MATH 1105	Algebra III: DE - CMAT 1213 College Algebra	160500
Environmental Science	ENSC 1000	Environmental Science: DE - CEVS 1103 Environmental Science	150914
Introduction to Fiction or British Literature	ENGL 2055 or ENGL 2020	English IV: DE - CENL 2303 Introduction to Fiction or CENL 2103 British Literature I	120614 or 120608
Mathematics for Workforce Occupations	WFMA 1003		
Seminar in First-Year Experience	SFSE 1003		
Introduction to Automotive Technology	AUTO 1002		
Brakes	AUTO 1504		
Electronics I	AUTO 1604		
Electronics II	AUTO 1614		
Transmission, Transaxle, & Manual Drives	AUTO 1215		
Engine Performance I	AUTO 1225		
Steering and Suspension	AUTO 1406		
Engine Repair	AUTO 2114		
Heating and AC	AUTO 2204		
Engine Performance II	AUTO 2304		

Post-Secondary Degree Paths

South Louisiana Community College: Associate of Applied Science: Technical Studies in Marine Electronics

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Rhetoric & Composition	ENG 1010	English III: DE - CENL 1013 English Composition I	120601
Introduction to Fiction or British Literature	ENG 2055 or ENG 2020	English IV: DE - CENL 2303 Introduction to Fiction or CENL 2103 British Literature I	120614 or 120608
College Algebra	MATH 1105	Algebra III: DE - CMAT 1213 College Algebra	160500
American National Government	POLI 1100	US Government: DE - CPOL 2013 Intro to American Government	220514
Environmental Science	ENSC 1000	Environmental Science: DE - CEVS 1103 Environmental Science	150914
Direct Current Circuits	IMEL 1005		
Alternating Current Circuits	IMEL 1105		
Semiconductors and Transistor Circuits	IMEL 1206		
Digital Circuits	IMEL 1307		
Industrial Marine Hydraulics	IMEL 1406		
Motor Controls	IMEL 1503		
Remote Operated Vehicles	IMEL 1705		
Advanced Remote Operated Vehicles	IMEL 1603		
Programmable Logic Controllers	IMEL 1603		
Basic Industrial Scaffolding (SLCC Corporate College)	TBD by Course Selected		
Marine Operation (SLCC Corporate College)	TBD by Course Selected		

Post-Secondary Degree Paths

South Louisiana Community College: Associate of Applied Science: Technical Studies Heating, Air Conditioning, and Refrigeration

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Rhetoric & Composition	ENGL 1010	English III: DE - CENL 1013 English Composition I	120601
Introduction to Fiction or British Literature	ENGL 2055 or ENGL 2020	English IV: DE - CENL 2303 Introduction to Fiction or CENL 2103 British Literature I	120614 or 120608
College Algebra	MATH 1105	Algebra III: DE - CMAT 1213 College Algebra	160500
American National Government	POLI 1100	US Government: DE - CPOL 2013 Intro to Government	220514
Environmental Science	ENSC 1000	Environmental Science: DE - CEVS 1103 Environmental Science	150914
Seminar in First-Year Student Experience	SFSE 1000		
Principles of Refrigeration	HACR 1106		
Electrical Fundamentals	HACR 1206		
Introduction to HACR	HACR 1002		
Electric Motors	HACR 1303		
Applied Electricity and Troubleshooting	HACR 1313		
Domestic Refrigeration	HACR 1413		
Residential Central Air Conditioning I	HACR 1604		
Residential System Design	HACR 2202		
Residential Heating	HACR 2306		
Room Air Conditioning	HACR 1503		
Residential Central Air Conditioning II	HACR 2104		
Mathematics for Workforce Occupations	WFMA 1003		

Secondary Courses - Grades 9-10

Completing the post-secondary sequence of courses will provide the student with most graduation requirements. The below set of courses would need to be completed on the high school campus.

TOPS University	
Core Academic Requirements	LDOE Course Code
English I	120331
English II	120332
English III	120333
Algebra I	160321
Algebra II	160322
Geometry	160323
Financial Literacy	160345
Biology	150301
Civics	220501/220504
U.S. History	220403
Physical Education I	190105
½ Physical Education II	190106
½ Health Education	190500
Art	TBD by course selected
Foreign Language I	TBD by course selected
Foreign Language II	TBD by course selected

Jump Start	
Core Academic Requirements	LDOE Course Code
English I	120331
English II	120332
Algebra I	160321
Financial Literacy	160345
Geometry	160323
Biology	150301
Civics	220501/220504
Physical Education I	190105
½ Physical Education II	190106
½ Health Education	190500

Capstone Credentials

In order to graduate, Jump Start students must earn at least one credential from the options below.

Emerging	Basic	Advanced	Fast Forward
Career and Technical Certificate (LCTCS)	Certificate of Technical Studies (LCTCS)	Certificate of Technical Studies (LCTCS)	Associate of Applied Science
OSHA 30	ASE Student Certificate	ASE Student Certificate (3+ certifications)	
	FAA Part 107: Small Unmanned Aircraft Operations		
	EPA Section 608 Certification and Air Conditioning, Electrical, or Heat Employment Ready		

High School Transcript

The below courses should be used for college courses without a dedicated secondary course code.

Secondary Course Name	Secondary Course Code	Maximum Carnegie Units
Fast Forward Automotive 1	891700	4
Fast Forward Automotive 2	891701	4
Fast Forward Automotive 3	891702	4
Fast Forward Automotive 4	891703	4
Fast Forward Automotive 5	891704	4
Fast Forward Automotive 6	891705	4
Fast Forward Automotive 7	891706	4
Fast Forward Automotive 8	891707	4