

Engineering Technology

Overview

The Fast Forward Engineering Technology (CIP 15) pathway has seventeen Associate Degree opportunities through Bossier Parish Community College, Central Louisiana Technical Community College, Louisiana Delta Community College, Northwest Louisiana Technical Community College, Nunez Community College, River Parish Community College, Southeastern Louisiana University, and Southern University - Shreveport.

This pathway is typically trained to apply fundamental engineering principles and technical skills to assist engineers across a wide range of projects. The training covers various engineering support tasks for research, production, and operations, as well as their application to specific engineering fields.

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

- **Bossier Parish Community College:**
[Associate of Applied Science: Industrial Engineering Technology Automation and Controls](#)
[Associate of Applied Science: Industrial Engineering Technology Concentration in Engineering Graphics](#)
[Associate of Applied Science: Industrial Engineering Technology Concentration in Industrial Maintenance](#)
- **Central Louisiana Community College:**
[Associate of Applied Science: Technical Studies in Industrial Manufacturing Technology](#)
[Associate of Applied Science: Technical Studies in Drafting and Design Technology](#)
- **Louisiana Delta Community College:**
[Associate of Applied Science: Industrial Instrumentation Technology](#)
- **Northwest Louisiana Technical Community College:**
[Associate of Applied Science: Instrumentation and Electrical Technology](#)
- **Nunez Community College:**
[Associate of Applied Science: Process Technology](#)
[Associate of Applied Science: Instrumentation](#)
- **River Parish Community College:**
[Associate of Applied Science: Drafting and Design Technology](#)
[Associate of Applied Science: Process Technology](#)
[Associate of Applied Science: Instrumentation & Electrical Technology](#)
- **Southeastern Louisiana University:**
[Associate of Applied Science: Industrial Technology Concentration in Drafting and Design](#)
[Associate of Applied Science: Industrial Technology Concentration in Occupational Safety, Health, and Environment](#)
[Associate of Applied Science: Industrial Technology Concentration in Supervision](#)
[Associate of Applied Science: Industrial Technology Concentration Construction Technology](#)
- **Southern University - Shreveport:**
[Associate of Applied Science: Engineering Technology](#)



Post-Secondary Degree Paths

Bossier Parish Community College: Associate of Applied Science: Industrial Engineering Technology Concentration in Automation and Controls

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Composition and Rhetoric	ENGL 101	English IV: DE - CENL 1013 English Composition I	120606
College Algebra	MATH 102	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 112	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
World Civilization I or Western Civilization II	HIST 101 or 102	World History: DE - CHIS 1113 World Civilization I or World History: DE - CHIS 1123 World Civilization II	220450 or 220451
Social/Behavioral Science Elective: Principles of Macroeconomics	BADM 201	Economics: DE - CECN 2213 Macroeconomics	220608
Public Speaking	SPCH 110		
Fundamentals of Electricity and Lab Cert: Precision Exams Electronics I	TEED 101		
Introductory Computer Drafting Cert: Autodesk AutoCAD Certified User Certification	TEED 143		
Solid Works 3D	TEED 161		
Fundamentals of Electricity and Lab II	TEED 102		
Introduction to Digital Electronics and Programmable Logic Controllers	TEED 201		
Pneumatics or Hydraulics/Fluid Dynamics with Lab	TEED 150 or 153		
Intro to Microprocessors	TEED 202		
Electronics Equipment and Repair	TEED 206		
Mechatronics Level I	TEED 260		
Intermediate Programmable Logic Controllers (PLCs) and Lab or IET Elective	TEED 208 or TBD by Course Selected		
Robotic Control Systems or IET Elective	TEED 210 or TBD by Course Selected		
Electric Motor Controls and Lab	TEED 252		
IET Elective	TBD by Course Selected		
Elemental Physics or General Physics	PHSC 105 or PHYS 201		

Post-Secondary Degree Paths

Bossier Parish Community College: Associate of Applied Science: Industrial Engineering Technology Concentration in Engineering Graphics

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Composition and Rhetoric	ENGL 101	English IV: DE - CENL 1013 English Composition I	120606
College Algebra	MATH 102	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 112	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
World Civilization I or Western Civilization II	HIST 101 or 102	World History: DE - CHIS 1113 World Civilization I or World History: DE - CHIS 1123 World Civilization II	220450 or 220451
Social/Behavioral Science Elective: Principles of Macroeconomics	BADM 201	Economics: DE - CECN 2213 Macroeconomics	220608
Public Speaking	SPCH 110		
Fundamentals of Electricity and Lab Cert: Precision Exams Electronics I	TEED 101		
Print Reading for Engineering and Manufacturing	TEED 142		
Introductory Computer Drafting Cert: Autodesk AutoCAD Certified User Certification	TEED 143		
Intermediate Computer Drafting	TEED 144		
Pneumatics or Hydraulics/Fluid Dynamics with Lab	TEED 150 or 153		
Building Information Modeling I	TEED 171		
Computer Drafting Applications and Laboratory	TEED 158		
Solid Works 3D	TEED 161		
Mechatronics Level I	TEED 260		
Fundamentals of Electricity/Lab II	TEED 102		
Elemental Physics or General Physics	PHSC 105 or PHYS 201		
Computer-Aided Manufacturing	AMFG 210		
Industrial Technology Technical Elective	TBD by Course Selected		
Advanced Solid Works 3D	TEED 220		

Post-Secondary Degree Paths

Bossier Parish Community College: Associate of Applied Science: Industrial Engineering Technology Concentration in Industrial Maintenance

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Composition and Rhetoric	ENGL 101	English IV: DE - CENL 1013 English Composition I	120606
College Algebra	MATH 102	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 112	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
World Civilization I or Western Civilization II	HIST 101 or HIST 102	World History: DE - CHIS 1113 World Civilization I or World History: DE - CHIS 1123 World Civilization II	220450 or 220451
Social/Behavioral Science Elective: Principles of Macroeconomics	BADM 201	Economics: DE - CECN 2213 Macroeconomics	220608
Public Speaking	SPCH 110		
Fundamentals of Electricity and Lab Cert: Precision Exams Electronics I	TEED 101		
Print Reading for Engineering and Manufacturing	TEED 142		
Survey of Welding	WELD 101		
Manufacturing Materials and Methods	AMFG 110		
Pneumatics	TEED 150		
Power Transmission Technology	TEED 151		
Introductory Computer Drafting Cert: Autodesk AutoCAD Certified User Certification or Computer-Aided Manufacturing	TEED 143 or AFMG 210		
Hydraulics/Fluid Dynamics with Lab	TEED 153		
Solid Works 3D	TEED 161		
Industrial Technology Technical Elective	TBD by Course Selected		
Advanced Shielded Metal Arc Welding (SMAW) or Industrial Technology Technical Elective	WELD 103 or TBD by Course Selected		
Electric Motor Controls and Lab	TEED 252		

Post-Secondary Degree Paths

Central Louisiana Community College: Associate of Applied Science: Technical Studies in Industrial Manufacturing Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition I	ENGL 1010	English III: DE - CENL 1013 English Composition I	120601
General Biology I	BIOL 1010	Biology II: DE - CBIO 1013 General Biology I	150323
American History I	HIST 2010	U.S. History: DE - CHIS 2013 American History I	220407
College Algebra or Contemporary Math	MATH 1100 or MATH 1300		
Job Seeking Skills	JOB 2450		
Intro. To Criminal Justice	SOCL 1100		
Orientation	ORNT 1000		
Introduction to Manufacturing	IMFG 1100		
Tools and Equipment Used in Manufacturing	IMFG 1120		
Automation	IMFG 1200		
Introduction to Fabrication, Process Technology and Machining	IMFG 1300		
Basic AC/DC Electrical	IMFG 1215		
Basic Mechanical	IMFG 1121		
Wiring/Electrical Blueprint Interpretation	IJET 1433		
Contemporary Math	MATH 1300		
Fluid Power I	IMFG 1150		
Motor Controls	IMFG 1235		
Understanding Programmable Controllers	IJET 2123		
Process Measurements	IMFG 2100		
Advanced Programmable Controllers Mechatronics	IMFG 1250		
Introduction to Industrial Network	IMFG 1260		
Advanced Process Control Mechatronics	IMFG 2800		
Collaborative Learning Composition	ENGL 96		
Industrial Control Components and Equipment	IMFG 2200		

Post-Secondary Degree Paths

Central Louisiana Technical Community College: Associate of Applied Science: Technical Studies in Drafting and Design Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition I	ENGL 1010	English III: DE - CENL 1013 English Composition I	120601
American History I	HIST 2010	US History: DE - CHIS 2013 American History I	220407
General Biology I	BIOL 1010	Biology II: DE - CBIO 1013 General Biology I	150323
Job Seeking Skills	JOB 2450		
College Algebra or Contemporary Math	MATH 1100 or MATH 1300		
Intro. To Criminal Justice	SOCL 1100		
Machine & Section Drawing	DRFT 1145		
Orientation	ORNT 1000		
Drafting Fundamentals	DRFT 1110		
Geometric Construction	DRFT 1120		
Pictorial Drawing	DRFT 1130		
Basic Computer-Aided Drafting & Design	CADD 1210		
Dimensioning	DRFT 1161		
Technical Math I or Drafting Math I	MATH 1110 or DRFT 1160		
Auxiliary Views/Intersections & Development	DRFT 1215		
Fasteners	DRFT 1230		
Advanced Discipline (Architectural/Civil/Structural)	DRFT 2350		
Collaborative Learning Composition	ENGL 96		
Advanced Computer	CADD 1215		
Introduction to Manufacturing/Electrical	DRFT 2310		
Introduction to Architectural/Civil/Structural	DRFT 2320		
Introduction to Piping/Marine	DRFT 2330		
Advanced Discipline (Manufacturing/Electrical)	DRFT 2340		
Advanced Discipline (Piping/Marine)	DRFT 2360		

Post-Secondary Degree Paths

Louisiana Delta Community College: Associate of Applied Science: Industrial Instrumentation Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition I	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 110	Algebra III: DE - CMAT 1213 College Algebra	160500
Introduction Psychology	PSYC 201	Psychology: DE - CPSY 2013 Introduction to Psychology	225011
Physical Science I	PHSC 100	Physical Science: DE - CPHY 1023 Physical Science I	150915
History of The US 1877 - Present	HIST 202	US History: DE - CHIS 2023 American History II	220408
Business English	BUSE 1030		
Introduction to Industrial Instrumentation	INST 1000		
Fundamentals of Direct & Alternating Current Circuits	INST 1010		
Digital Logic & Analog/Digital Conversion	INST 1030		
Practical Writing and Fabrication	INST 1500		
Motors and Motor Control	INST 1510		
Solid State Devices and Circuits	INST 1020		
Freshman Seminar	ORNT 1000		
Primary/Final Elements and Control Loops	INST 1520		
Properties of Temperature, Pressure, and Flow	INST 1530		
Automatic Control, Controllers, and Tuning	INST 1540		
Analytical Measurement and Control	INST 2000		
Intro to Public Speaking	SPCM 120		
Safety Standards and Systems	INST 2010		
Programmable Logic Controllers	INST 2020		
Communication and Distributed Control	INST 2030		
Introduction to Computers	CPTR 1000		
Job Seeking Skills	JOBS 2450		

Post-Secondary Degree Paths

Northwest Louisiana Technical Community College: Associate of Applied Science: Industrial Instrumentation and Electrical Technology

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 1013 English Composition I	120606
College Algebra	MATH 1015	Algebra III: DE - CMAT 1213 College Algebra	160500
Physical Science I	PHSC 1015	Physical Science: DE - CPHY 1023 Physical Science I	150915
LCTCS Work Readiness	LEAD 1003 or INST 2995		
Industrial Workplace Safety	WKSF 1003 or INST 1110		
Industrial Tools & Calculations	IJET 10012 or INST 1340		
Electrical Circuits Theory and Practice I	IJET 1022 or ETRN 1131		
Electrical Circuits Theory and Practice II	IJET 1032 or ETRN 1131		
Electronic Circuits Theory and Practice	IJET 1212		
Electronic Power Theory and Practice I	IJET 1222		
Electronic Power Theory and Practice II	IJET 1232		
Industrial Electrical Power Theory and Practice I	IJET 1243		
Industrial Electrical Power and Theory Practice II	IJET 1253		
Control Systems - Theory and Practice	IJET 2014		
Instrumentation Process Measurement Theory and Practice I	IJET 2024		
Instrumentation Process Measurement Theory and Practice II	IJET 2034		
Intro to Psychology	PSYC 2015		
Instrumentation Control Systems Theory and Practice I	IJET 2043		
Instrumentation Control Systems Theory and Practice II	IJET 2053		
Capstone: Integrated Control Systems Troubleshooting	IJET 2063		
Introduction to Speech	SPCH 1015		
History of the United States	HIST 2010		

Post-Secondary Degree Paths

Nunez Community College: Associate of Applied Science: Process Technology

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
Chemistry/Lab	CHEM 1100/1110	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Microeconomics	ECON 2000	Economics: DE - CECN 2223 Microeconomics	220609
Physics/Lab	PHYS 1100/1110	Physics I: DE - CPHY 2114 Physics I (Lec & Lab)	150727
Survey of Microcomputer Apps	BUSN 1150		
Intro to Process Technology	PTEC 1010		
Industrial and Plant Safety	INDT 1030		
Humanities Elective	TBD by Course Selected		
Process Instrumentation/Lab	PTEC 1330/1331		
Quality Controls	INDT 2070		
Process Equipment/Lab	PTEC 1630/1631		
Business Communications	BUSN 2400		
Process Systems/Lab	PTEC 2420/2421		
Process Operations/Lab	PTEC 2430/2431		
Job Readiness Skills	INDT 2900		
Process Troubleshooting	PTEC 2440		
PTEC Internship	PTEC 2910		
Fluid Mechanics	PTEC 2630		

Post-Secondary Degree Paths

Nunez Community College: Associate of Applied Science: Instrumentation

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 or English III: DE - CENL 1013 English Composition I	120606/120601
College Algebra	MATH 1300	Algebra III: DE - CMAT 1213 College Algebra	160500
Physical Science	PHSC 1000	Physical Science: DE - CPHY 1023 Physical Science I	150915
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
Humanities Elective	TBD by Course Selected		
Social Science Elective	TBD by Course Selected		
Introduction to Construction	CNST 1000		
NCCER Electrical Construction I	ELEC 1000		
NCCER Instrument Level I	INST 1010		
NCCER Electrical Construction II	ELEC 1010		
NCCER Instrument Level II	INST 1020		
NCCER Instrument Level III	INST 1030		
NCCER Instrument Level IV	INST 1040		

Post-Secondary Degree Paths

River Parish Community College: Associate of Applied Science: Drafting and Design

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Composition and Rhetoric	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 102	Algebra III: DE - CMAT 1213 College Algebra	160500
Principles of Macroeconomics	BADM 201	Economics: DE - CECN 2213 Macroeconomics	220608
Physical Science	PHSC 1010	Physical Science: DE - CPHY 1023 Physical Science I	150915
Social Science Elective	TBD by Course Selected		
Fundamentals of Drafting & Design	DRFT 1000		
Introduction to CADD	CADD 1100		
Introduction to Computer Technology	CSCI 1010		
Advanced CADD	CADD 1200		
Print Reading for Industry	PRNT 1000		
Introduction to Speech	SPCH 1200		
Introduction to Drafting Disciplines	DRFT 1300		
3-D CADD Concepts	CADD 1300		
Plant Equipment	PTEC 1630		
Plant Equipment Lab	PTEC 1631		
Advanced Drafting Disciplines	DRFT 1500		
Plant 3D and BIM	CADD 1700		
TEC Electives	TBD by Course Selected		

Post-Secondary Degree Paths

River Parishes Community College: Associate of Applied Science: Process Technology

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 1100	Algebra III: DE - CMAT 1213 College Algebra	160500
Physical Science/Lab or Physics/Lab	PHSC 1010/1010L or PHYS 2010/2010L	Physical Science: DE - CPHY 1023 Physical Science I or Physics: DE - CPHY 2114 Physics I (Lec & Lab)	150915 or 150727
Chemistry/Lab	CHEM 1010/1010L	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Economics (Micro or Macro)	ECON 2010 or 2020	Economics: DE - CECN 2213 Macroeconomics or CECN 2223 Microeconomics	220608 or 220609
Intro to Process Technology	PTEC 1010		
Plant Safety, Health & Environment	PTEC 2030		
Process Instrumentation /Lab	PTEC 1330/1331		
Plant Equipment/Lab	PTEC 1630/1631		
Business Professional Communication	ENGL 2300 or BUSN 2300		
Statistical Quality Control	PTEC 2070		
Process Systems/Lab	PTEC 2420/2421		
Fluid Mechanics	PTEC 2630		
Troubleshooting	PTEC 2440		
Unit Operations/Lab	PTEC 2430/2431		
Internship (Campus/Independent)	PTEC 2911 or 2912		
Techniques of Speech	SPCH 1200		

Post-Secondary Degree Paths

River Parishes Community College: Associate of Applied Science: Instrumentation & Electrical Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
English Composition	ENGL 1010	English IV: DE - CENL 1013 English Composition I	120606
College Algebra	MATH 1000	Algebra III: DE - CMAT 1213 College Algebra	160500
Physical Science/Lab	PHSC 1010/1010L	Physical Science: DE - CPHY 1023 Physical Science I	150915
Intro to Computer Technology	CSCI 1010		
Core Industry Safety	CORE 1003		
Electrical Systems & Equipment	INST 1011		
Fundamentals of Electricity & Electronics	ETRN 1112		
Fundamentals of Semiconductors & Transistors	ETRN 1212		
Introduction to Speech	SPCH 1010 or 1020		
Digital Circuits	ETRN 1420		
Principles of Process Controls	INST 1435		
Pressure & Level Measurement	INST 1330		
Flow & Final Control Elements	INST 1425		
Temperature & Analytical Measurement	INST 2732		
Motor Controls, VFD & Vibration Analysis	INST 2745		
Social Science - ECON, POLI, PSYC, or SOCL	TBD by Course Selected		
Programmable Logic Controllers	INST 2741		
Industrial Electrical Control Systems	INST 2755		
Industry Troubleshooting Capstone	INST 2000		

Post-Secondary Degree Paths

Southeastern Louisiana University: Associate of Applied Science: Industrial Technology Concentration in Drafting and Design

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Freshman Composition	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 161	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 162	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
Critical Reading and Writing	ENGL 102	English IV: DE - CENL 1023 English Composition II	120607
American History I	HIST 201 or 202	US History: DE - CHIS 2013 American History I	220407
General Physics	PHYS/PLAB 191/193	Physics: DE - CPHY 2114 Physics I (Lec & Lab)	150727
Western Civilization	HIST 101 or 102	Western Civ: DE - CHIS 1013 Western Civilization I	220446
General Chemistry I and Lab	CHEM/CLAB 101/103	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Software for Management Data	CMPS 173		
Construction Graphics	CTEC 111 or IT 100		
Engineering Drafting with Computer-Assisted Design	IT 111		
Freshman Success	SE 101		
Introductory Sociology	SOC 101		
Design Drafter	DDT 113		
Intro to Occupational Safety, Health and Environment	OSHE 111		
Industrial Internship/Independent Study	IT 291/292		
Introduction to Public Speaking	COMM 211		
Materials and Processes	IT 242		
Industrial Fluid Power	IT 264		
Descriptive Geometry	IT 212		
Technical Elective	TDB by Course Selected		
Intro to Basic Electricity and Electronics	IT 233		
Pipe Drafting	DDT 211		
3D Rendering Using CAD Software	IT 215		

Post-Secondary Degree Paths

Southeastern Louisiana University: Associate of Applied Science: Industrial Technology Concentration in Occupational Safety, Health, and Environment

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Freshman Composition	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 161	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 162	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
Elementary Statistics	MATH 241	Probability and Statistics: DE - CMAT 1303 Introductory Stat	160356
Critical Reading and Writing	ENGL 102	English IV: DE - CENL 1023 English Composition II	120607
Psychology	PSYC 101	Psychology: DE - CPSY 2013 Introduction to Psychology	225011
American History I	HIST 201 or 202	US History: DE - CHIS 2013 American History I	220407
General Physics	PHYS/PLAB 191/193	Physics: DE - CPHY 2114 Physics I (Lec & Lab)	150727
Western Civilization	HIST 101 or 102	Western Civ: DE - CHIS 1013 Western Civilization I	220446
General Chemistry I and Lab	CHEM/CLAB 101/103	Chemistry I: DE - CCEM 1103 Chemistry I	150414
General Biology I/Lab	GBIO 151/BIOL 152	Biology II: DE - C BIO 1013 General Biology I	150323
Software for Management Data	CMPS 173		
Freshman Success	SE 101		
Intro to Occupational Safety, Health and Environment	OSHE 111		
Design of Hazard Controls	OSHE 112		
Safety & Health Program Management & Administration	OSHE 121		
Introduction to Public Speaking	COMM 211		
Safety Laws, Regulations, and Standards	OSHE 231		
Principles of Industrial Hygiene/Toxicology	OSHE 141		
Ergonomics	OSHE 243		
Environmental Laws and Regulations	OSHE 251		
Fire Protection and Prevention	OSHE 261		

Post-Secondary Degree Paths

Southeastern Louisiana University: Associate of Applied Science: Industrial Technology Concentration in Supervision

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Freshman Composition	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 161	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 162	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
Critical Reading and Writing	ENGL 102	English IV: DE - CENL 1023 English Composition II	120607
American History I	HIST 201 or 202	US History: DE - CHIS 2013 American History I	220407
General Physics	PHYS/PLAB 191/193	Physics: DE - CPHY 2114 Physics I (Lec & Lab)	150727
Western Civilization	HIST 101 or 102	Western Civ: DE - CHIS 1013 Western Civilization I	220446
General Chemistry I and Lab	CHEM/CLAB 101/103	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Intro to Occupational Safety, Health and Environment	OSHE 111		
Construction Graphics	CTEC 111 or IT 100		
Engineering Drafting with Computer-Assisted Design	IT 111		
Freshman Success	SE 101		
Introductory Sociology	SOC 101		
Principles & Metallurgy of Welding	IT 256		
Descriptive Geometry	IT 112		
Intro to Basic Electricity and Electronics	IT 233		
Introduction to Public Speaking	COMM 211		
Fundamentals of Supervision	IT 202		
Software Management of Data	CMPS 173		
Industrial Fluid Power	IT 264		
Safety/Health Program Management Administration	OSHE 121		
Preventive Predictive Maintenance & Supervision	IT 205		

Post-Secondary Degree Paths

Southeastern Louisiana University: Associate of Applied Science: Industrial Technology Concentration in Construction Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Freshman Composition	ENGL 101	English III: DE - CENL 1013 English Composition I	120601
College Algebra	MATH 161	Algebra III: DE - CMAT 1213 College Algebra	160500
Trigonometry	MATH 162	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
Critical Reading and Writing	ENGL 102	English IV: DE - CENL 1023 English Composition II	120607
American History I	HIST 201 or 202	US History: DE - CHIS 2013 American History I	220407
General Physics	PHYS/PLAB 191/193	Physics: DE - CPHY 2114 Physics I (Lec & Lab)	150727
Western Civilization	HIST 101 or 102	Western Civ: DE - CHIS 1013 Western Civilization I	220446
General Chemistry I and Lab	CHEM/CLAB 101/103	Chemistry I: DE - CCEM 1103 Chemistry I	150414
Intro to Occupational Safety, Health and Environment	OSHE 111		
Construction Graphics	CTEC 111		
Engineering Drafting with Computer-Assisted Design	IT 111		
Freshman Success	SE 101		
Introductory Sociology	SOC 101		
Construction Industry Systems	CTEC 101		
Construction Materials	CTEC 121 or 132		
Introduction to Public Speaking	COMM 211		
Survey Principles	CTEC 171		
Software for Management of Data	CMPS 173		
Project Supervision	CTEC 202		
Project Management	CTEC 201		
Construction Estimating	CTEC 271		
Computer Planning and Scheduling	CTEC 203		
Design Drafter	DDT 113		
Industrial Internship/Independent Study	IT 291/292		

Post-Secondary Degree Paths

Southern University Shreveport: Associate of Applied Science: Engineering Technology

Post-Secondary Course Name	Post-Secondary Course Code	Dedicated Secondary Course Name	Dedicated Secondary Course Code
Freshman English I	SENG 01S	English III: DE - CENL 1013 English Composition I	120601
Freshman English II	SENG 102S	English IV: DE - CENL 1023 English Composition II	120607
Western Civilization	SHIS 101S	Western Civ: DE - CHIS 1013 Western Civilization	220446
Chemistry I Lecture/Lab	SCHE 132S/132LS	Chemistry II: DE - CCEM 1103 Chemistry	150419
Pre-Calculus Algebra	SMAT 121S	Pre-Calculus: DE - CMAT 1233 or (CMAT 1213 & 1223) Alg & Trig	160502
Plane Trigonometry	SMAT 122S	Adv Math-Pre Calc: DE - CMAT 1223 Trigonometry	160501
Understanding the Arts	FIAR 200S	Fine Arts Survey: DE - CART 1013 Exploring the Arts	030593
Introduction to Sociology	SOC 201S		
Digital Logic Design	ELEC 220S		
Engineering Graphics	ENGR 120S		
Intro to Industrial Engineering Technology	IETC 125S		
Introduction to Engineering & Technology	ENGR 140S		
Technical Communication	ENGR 230S		
Electrical Circuits I	ELEC 110S		
Engineering Mechanics	ENGR 226S		
Electrical Circuits II Lecture and Lab	IETC 228S		
Manufacturing Materials & Science	IETC 228S		
Electro-Mechanical Control Technology	ENGR 240S		
Safety, Health, & Environment (OSHA)	ENGR 201S		
Quality Control Systems (Lean Six Sigma)	ENGR 208S		
Production, Planning & Control	IETC 135S		
Work Ergonomics & Measurement	IETC 236S		
Industrial Engineering Technology Co-Op	IETC 299S		

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
NCCER Core	Autodesk Certified User AutoCAD	Autodesk Inventor Certified User	
OSHA 30	NCCER Electrical; Carpentry Level 1	NCCER Electrical; Carpentry Level 2	
Autodesk Revit			

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 Engineering 1	891400	4
Fast Forward Engineering 2	891401	4
Fast Forward Engineering 3	891402	4
Fast Forward Engineering 4	891403	4
Fast Forward Engineering 5	891404	4
Fast Forward Engineering 6	891405	4
Fast Forward Engineering 7	891406	4
Fast Forward Engineering 8	891407	4