



# MANUFACTURING

For incoming freshmen beginning 2020-2021

## OVERVIEW

The Manufacturing Jump Start 2.0 Pathway prepares students to work in the process and production fields. Pathway coursework equips students to design, create, assemble, install, and repair electrical and mechanical systems. Students will be able to perform preventive maintenance procedures on machines, tools, and equipment on a routine basis. This pathway also encompasses petrochemical courses in which students learn about the refining and processing of petroleum and/or natural gas. Manufacturing workers will be able to move into advanced manufacturing careers to use innovative technology to improve current products or processes, helping companies produce their products more efficiently.

## COLLEGE AND CAREER CONNECTIONS

Finding high-wage career opportunities directly out of high school can be challenging. It typically requires advanced capstone credentials accompanied by work experience and/or apprenticeships in the field.

High School to Career	Community/Technical College to Career	University to Career
Entry Level Warehouse Operator	Mechanical/Piping/Electrical Designer Trainee	Chemical Engineer
Instrument Technician Trainee	Instrument Technician	Mechanical Engineer
Electrical Technician Trainee	Electrical Technician	Electrical Engineer

## CAPSTONE CREDENTIALS

To graduate, Jump Start students must earn at least one credential from the list below. Some options may require more than one credential. These are noted with ‡. Credential codes and their Thrive Accelerator Index values can be found in the Industry-Based Certification Accelerator Matrix.

ADDA Certified Architectural Apprentice Drafter	NCCER Industrial Maintenance Mechanic Level 1‡
Autodesk Certified User AutoCAD	NCCER Industrial Maintenance Mechanic Level 2‡
Autodesk Certified User Fusion 360	NCCER Instrumentation Level 1‡
AutoDesk Revit	NCCER Instrumentation Level 2‡
AutoDesk Inventor Certified User	NCCER Mechanical Insulating Level 1‡
AWS Welding 1G	NCCER Mechanical Insulating Level 2‡
Carpenter International Training Fund (CITF) Millwright‡	NCCER Millwright Level 1‡
Carpenter International Training Fund (CITF) Welding Level 1‡	NCCER Millwright Level 2‡
Carpenter International Training Fund (CITF) Welding Level 2‡	NCCER Mobile Crane Operator Level 1‡
Certified Logistics Associate or Technician (MSSC)	NCCER Mobile Crane Operator Level 2‡
Certified Production Technician (CPT) AND Certified Production Technician Plus (CPT+)	NCCER Pipefitting Level 1‡
Electrical Training ALLIANCE Interim Credential (etA) Levels 1-3	NCCER Pipefitting Level 2‡
Electrical Training ALLIANCE Interim Credential (etA) Level 4	NCCER Rigger‡
Electrical Training ALLIANCE Interim Credential (etA) Level 5	NCCER Welding Level 1‡
Electrical Training ALLIANCE Interim Credential (etA) Levels 1-5‡	NCCER Welding Level 2‡
Geographic Information System - Entry Level Technician Certification	NIMS Machining Level 1 Certification
LCTCS: Career and Technical Certificate *	NIMS Machining Level 2 Certification
LCTCS: Certificate of Technical Studies *	North America's Building Trades Unions Multi-Craft Core Curriculum
LCTCS: Technical Diploma*	OSHA 10**
Louisiana Micro-Enterprise - Statewide	OSHA 30
NCCER Core	PEC Basic Orientation Safe Gulf
NCCER Electrical Level 1‡	PEC Basic Orientation Safe Land
NCCER Electrical Level 2‡	Personal Safety/Social Responsibilities, Basic Water Survival, Basic Firefighting AND Basic First Aid/CPR AED‡
NCCER Heavy Equipment Operations Level 1‡	Production Safety Systems (T-2) Basic
NCCER Heavy Equipment Operations Level 2‡	Water Survival/Helicopter Underwater Egress Training (HUET)
NCCER Industrial Coating & Lining Application Level 1‡	

\*Aligned to the pathway.

\*\*Credential is only available to students with disabilities as indicated by a current IEP.

## UNIVERSAL DOCUMENTS

[INDUSTRY-BASED CERTIFICATION ACCELERATOR MATRIX](#)
[FAST FORWARD FUNDING](#)
[UNIVERSAL COURSE CODES](#)

Course Code	Credits Allowed	Credits Required	Course Name
310383	1	0.5	Advanced Electrical Electronics
110610	1	0.5	ADVANCED ELECTRICITY/ELECTRONICS
160347	1	0.5	ADVANCED MATH - FUNCTIONS AND STATISTICS
160346	1	0.5	ADVANCED MATHEMATICS - PRE-CALCULUS
110240	1	0.5	ADVANCED METAL TECHNOLOGY
110590	1	0.5	ADVANCED TECHNICAL DRAFTING
110830	1	0.5	AEROSPACE ENGINEERING (1 CREDIT)
010364	1	0.5	AG LEADERSHIP (1 CREDIT)
010446	1	0.5	AG POWER EQUIPMENT (1 CREDIT)
010302	1	0.5	AGRISCIENCE II
010303	1	0.5	AGRISCIENCE III
010304	1	0.5	AGRISCIENCE IV
310100	1	0.5	AIR CONDITIONING/REFRIGERATION I (1 CREDIT)
310102	2	2	AIR CONDITIONING/REFRIGERATION I (2 CREDITS)
310103	3	1.5	AIR CONDITIONING/REFRIGERATION I (3 CREDITS)
310105	1	0.5	AIR CONDITIONING/REFRIGERATION II (1 CREDIT)
310112	2	2	AIR CONDITIONING/REFRIGERATION II (2 CREDITS)
310113	3	1.5	AIR CONDITIONING/REFRIGERATION II (3 CREDITS)
110580	1	0.5	ARCHITECTURAL DRAFTING
313100	1	0.5	AWS WELDING I (1 credit)
313102	2	2	AWS WELDING I (2 credits)
313103	3	1.5	AWS WELDING I (3 credits)
313105	1	0.5	AWS WELDING II (1 credit)
313106	2	2	AWS WELDING II (2 credits)
313107	3	1.5	AWS WELDING II (3 credits)
313108	1	0.5	AWS Welding III (1 credit)
313109	2	2	AWS Welding III (2 credits)
313110	3	1.5	AWS Welding III (3 credits)
313111	1	0.5	AWS Welding IV (1 credit)
313112	2	2	AWS Welding IV (2 credits)
313113	3	1.5	AWS Welding IV (3 credits)
110600	1	0.5	BASIC ELECTRICITY/ELECTRONICS
110200	1	0.5	BASIC METAL TECHNOLOGY I
313120	1	0.5	Basic SMAW
110560	1	0.5	BASIC TECHNICAL DRAFTING
010913	1	0.5	C4M in Agriscience I (1Credit)
010914	2	2	C4M in Agriscience I (2 Credits)
010915	2	2	C4M in Agriscience I (3 Credits)
010916	1	0.5	C4M in Agriscience II (1 Credit)
010917	2	2	C4M in Agriscience II (2 Credits)
010918	2	2	C4M in Agriscience II (3 Credits)
010919	1	0.5	C4M in Agriscience III (1 Credit)
010920	2	2	C4M in Agriscience III (2 Credits)
010921	2	2	C4M in Agriscience III (3 Credits)
010922	2	2	C4M in Agriscience IV (1 Credit)
010923	2	2	C4M in Agriscience IV (2 Credits)

010924	2	2	C4M in Agriscience IV (3 Credits)
080230	1	0.5	CDF-QUALIFYING PRE-APPRENTICESHIP I (1 CREDIT)
080231	2	2	CDF-QUALIFYING PRE-APPRENTICESHIP I (2 CREDITS)
080058	3	1	CDF-Qualifying Pre-Apprenticeship I: CITF Millwright
080054	3	1	CDF-Qualifying Pre-Apprenticeship I: CITF Welding
080233	1	0.5	CDF-QUALIFYING PRE-APPRENTICESHIP II (1 CREDIT)
080234	2	2	CDF-QUALIFYING PRE-APPRENTICESHIP II (2 CREDITS)
080055	3	1	CDF-Qualifying Pre-Apprenticeship II: CITF Welding
080236	1	0.5	CDF-QUALIFYING PRE-APPRENTICESHIP III (1 CREDIT)
080237	2	2	CDF-QUALIFYING PRE-APPRENTICESHIP III (2 CREDITS)
080239	1	0.5	CDF-QUALIFYING PRE-APPRENTICESHIP IV (1 CREDIT)
080240	2	2	CDF-QUALIFYING PRE-APPRENTICESHIP IV (2 CREDITS)
150401	1	0.5	CHEMISTRY
150413	1	0.5	Chemistry I: DE - CCEM 1013 General Chemistry Survey I
150414	1	0.5	Chemistry I: DE - CCEM 1103 Chemistry I
150415	1	0.5	Chemistry I: DE - CCEM 1123 Chemistry I (Sci Majors)
150412	1	0.5	Chemistry I: Gifted
150400	1	0.5	Chemistry I: Honors
110570	1	0.5	CMAD Drafting
110571	2	2	CMAD Drafting (2 credit)
110572	3	1.5	CMAD Drafting (3 credit)
110850	1	0.5	COMPUTER INTEGRATED MANUFACTURING (1 CREDIT)
040220	1	0.5	COMPUTER TECHNOLOGY LITERACY
110108	1	0.5	Construction Math - Level 1
110109	1	0.5	Construction Math - Level 2
080532	1	0.5	DATA MANIPULATION AND ANALYSIS (LSU PARTNERSHIP)
310622	1	0.5	Design, Blueprint Reading and Codes
311300	1	0.5	DRAFTING & DESIGN TECHNOLOGY I (1 CREDIT)
311302	2	2	DRAFTING & DESIGN TECHNOLOGY I (2 CREDITS)
311303	3	1.5	DRAFTING & DESIGN TECHNOLOGY I (3 CREDITS)
311305	1	0.5	DRAFTING & DESIGN TECHNOLOGY II (1 CREDIT)
311312	2	2	DRAFTING & DESIGN TECHNOLOGY II (2 CREDITS)
311313	3	1.5	DRAFTING & DESIGN TECHNOLOGY II (3 CREDITS)
311400	1	0.5	ELECTRICIAN I (1 CREDIT)
311402	2	2	ELECTRICIAN I (2 CREDITS)
311403	3	1.5	ELECTRICIAN I (3 CREDITS)
311405	1	0.5	ELECTRICIAN II (1 CREDIT)
311412	2	2	ELECTRICIAN II (2 CREDITS)
311413	3	1.5	ELECTRICIAN II (3 CREDITS)
110860	1	0.5	Engineering Design and Development
110861	1	0.5	ENGINEERING DESIGN AND DEVELOPMENT (LSU PARTNERSHIP)
080110	1	0.5	ENGINEERING DESIGN I (1 CREDIT)
080111	2	2	ENGINEERING DESIGN I (2 CREDITS)
080112	3	1.5	ENGINEERING DESIGN I (3 CREDITS)
080120	1	0.5	ENGINEERING DESIGN II (1 CREDIT)
080122	3	1.5	ENGINEERING DESIGN II (3 CREDITS)
150310	1	0.5	ENVIRONMENTAL SCIENCE
150311	1	0.5	Environmental Science: AP Environmental Science
150914	1	0.5	Environmental Science: DE - CEVS 1103 Environmental Science
150913	1	0.5	Environmental Science: Gifted
150328	1	0.5	Environmental Science: Honors
150740	1	0.5	FIRST ROBOTICS I (1 CREDIT)
150750	1	0.5	FIRST ROBOTICS II (1 CREDIT)

150760	1	0.5	FIRST ROBOTICS III (1 CREDIT)
150770	1	0.5	FIRST ROBOTICS IV (1 CREDIT)
110331	1	0.5	Fluid Mechanics
310631	1	0.5	Fundamentals of Industrial Scaffolding (1 Credit)
310632	2	2	Fundamentals of Industrial Scaffolding (2 Credits)
313200	1	0.5	G.M. TECHNICIAN I (1 CREDIT)
313202	2	2	G.M. TECHNICIAN I (2 CREDITS)
313203	3	1.5	G.M. TECHNICIAN I (3 CREDITS)
160323	1	0.5	GEOMETRY
010103	1	0.5	GIS Entry Level 1
010104	1	0.5	GIS Entry Level 2
110231	1	0.5	Grinder Assistant
311921	1	0.5	Industrial and Plant Safety
311800	1	0.5	INDUSTRIAL ELECTRONICS I (1 CREDIT)
311802	2	2	INDUSTRIAL ELECTRONICS I (2 CREDITS)
311803	3	1.5	INDUSTRIAL ELECTRONICS I (3 CREDITS)
311805	1	0.5	INDUSTRIAL ELECTRONICS II (1 CREDIT)
311812	2	2	INDUSTRIAL ELECTRONICS II (2 CREDITS)
311813	3	1.5	INDUSTRIAL ELECTRONICS II (3 CREDITS)
311917	3	1.5	INDUSTRIAL MACHINES SHOP III (3 CREDITS)
311900	1	0.5	INDUSTRIAL MACHINES SHOP I (1 CREDIT)
311902	2	2	INDUSTRIAL MACHINES SHOP I (2 CREDITS)
311903	3	1.5	INDUSTRIAL MACHINES SHOP I (3 CREDITS)
311905	1	0.5	INDUSTRIAL MACHINES SHOP II (1 CREDIT)
311912	2	2	INDUSTRIAL MACHINES SHOP II (2 CREDITS)
311913	3	1.5	INDUSTRIAL MACHINES SHOP II (3 CREDITS)
311915	1	0.5	Industrial Machines Shop III (1 credit)
311916	2	2	INDUSTRIAL MACHINES SHOP III (2 CREDITS)
311918	1	0.5	Industrial Machines Shop IV (1 credit)
311919	2	2	INDUSTRIAL MACHINES SHOP IV (2 CREDITS)
311920	3	1.5	INDUSTRIAL MACHINES SHOP IV (3 CREDITS)
061141	1	0.5	Intro to Computational Thinking
061140	1	0.5	INTRO TO COMPUTATIONAL THINKING FOR STEM (LSU PARTNERSHIP)
110800	1	1	INTRODUCTION TO ENGINEERING DESIGN (1 CREDIT)
110801	1	0.5	INTRODUCTION TO ENGINEERING DESIGN (LSU PARTNERSHIP)
110799	0.5	0.5	INTRODUCTION TO ENGINEERING DESIGN I (1/2 CREDIT)
311922	1	0.5	Introduction to Hazardous Materials
313831	1	0.5	Introduction to Logistics
110795	1	0.5	Introduction to Remote Controlled Vehicle Technologies
080818	1	0.5	Introduction to Social Media
313836	1	0.5	Maintenance Assistant
110256	1	0.5	MANUFACTURING PROCESS AND TEAM BUILDING (1 CREDIT)
110250	1	0.5	MANUFACTURING TECHNOLOGY
110257	1	0.5	MANUFACTURING TOOLS AND EQUIPMENT (1 CREDIT)
110005	1	0.5	MATERIALS AND PROCESSES
311720	1	0.5	NCCER Core
313400	1	0.5	NCCER ELECTRICAL I (1 CREDIT)
110711	1	0.5	NCCER ELECTRICAL I (1 CREDIT)
313402	2	2	NCCER ELECTRICAL I (2 CREDITS)
110712	2	2	NCCER ELECTRICAL I (2 CREDITS)
313403	3	1.5	NCCER ELECTRICAL I (3 CREDITS)
110713	3	1.5	NCCER ELECTRICAL I (3 CREDITS)
313405	1	0.5	NCCER ELECTRICAL II (1 CREDIT)
110716	1	0.5	NCCER ELECTRICAL II (1 CREDIT)
313412	2	2	NCCER ELECTRICAL II (2 CREDITS)

110717	2	2	NCCER ELECTRICAL II (2 CREDITS)
313413	3	1.5	NCCER ELECTRICAL II (3 CREDITS)
110718	3	1.5	NCCER ELECTRICAL II (3 CREDITS)
313417	1	0.5	NCCER Electrical III (1 Credit)
313418	2	2	NCCER Electrical III (2 Credits)
313419	3	1.5	NCCER Electrical III (3 Credits)
010701	1	0.5	NCCER ELECTRICAL IN AGRISCIENCE (1 CREDIT)
010702	2	2	NCCER ELECTRICAL IN AGRISCIENCE (2 CREDITS)
010703	3	1.5	NCCER ELECTRICAL IN AGRISCIENCE (3 CREDITS)
010704	1	0.5	NCCER Electrical in Agriscience II (1CR)
010705	1	0.5	NCCER Electrical in Agriscience II (2CR)
010706	1	0.5	NCCER Electrical in Agriscience II (3CR)
313420	1	0.5	NCCER Electrical IV (1 Credit)
313421	2	2	NCCER Electrical IV (2 Credits)
313422	3	1.5	NCCER Electrical IV (3 Credits)
313722	1	0.5	NCCER Heavy Equipment Operator Level I
313730	2	2	NCCER INDUSTRIAL MAINTENANCE ELECTRICAL & INSTRUMENTATION I
313729	1	0.5	NCCER INDUSTRIAL MAINTENANCE LEVEL II (1 CREDIT)
313500	1	0.5	NCCER INSTRUMENTATION CONTROL MECHANIC I (1 CREDIT)
110721	1	0.5	NCCER INSTRUMENTATION CONTROL MECHANIC I (1 CREDIT)
313502	2	2	NCCER INSTRUMENTATION CONTROL MECHANIC I (2 CREDITS)
110722	2	2	NCCER INSTRUMENTATION CONTROL MECHANIC I (2 CREDITS)
313503	3	1.5	NCCER INSTRUMENTATION CONTROL MECHANIC I (3 CREDITS)
110723	3	1.5	NCCER INSTRUMENTATION CONTROL MECHANIC I (3 CREDITS)
313505	1	0.5	NCCER INSTRUMENTATION CONTROL MECHANIC II (1 CREDIT)
110726	1	0.5	NCCER INSTRUMENTATION CONTROL MECHANIC II (1 CREDIT)
313512	2	2	NCCER INSTRUMENTATION CONTROL MECHANIC II (2 CREDITS)
110727	2	2	NCCER INSTRUMENTATION CONTROL MECHANIC II (2 CREDITS)
313513	3	1.5	NCCER INSTRUMENTATION CONTROL MECHANIC II (3 CREDITS)
110728	3	1.5	NCCER INSTRUMENTATION CONTROL MECHANIC II (3 CREDITS)
313517	1	0.5	NCCER Instrumentation Control Mechanic III
313520	1	0.5	NCCER Instrumentation IV
313829	1	0.5	NCCER INSULATING I (1 CREDIT)
313830	2	2	NCCER INSULATING I (2 CREDITS)
313714	1	0.5	NCCER MILLWRIGHT LEVEL I (1 CREDIT)
313740	2	2	NCCER MILLWRIGHT LEVEL I (2 CREDITS)
313741	3	1.5	NCCER MILLWRIGHT LEVEL I (3 CREDITS)
313715	1	0.5	NCCER MILLWRIGHT LEVEL II (1 CREDIT)
313742	2	2	NCCER MILLWRIGHT LEVEL II (2 CREDITS)
313743	3	1.5	NCCER MILLWRIGHT LEVEL II (3 CREDITS)
313716	1	0.5	NCCER MILLWRIGHT LEVEL III (1 CREDIT)
313744	2	2	NCCER MILLWRIGHT LEVEL III (2 CREDITS)
313745	3	1.5	NCCER MILLWRIGHT LEVEL III (3 CREDITS)
313717	1	0.5	NCCER MILLWRIGHT LEVEL IV (1 CREDIT)
313746	2	2	NCCER MILLWRIGHT LEVEL IV (2 CREDITS)
313747	3	1.5	NCCER MILLWRIGHT LEVEL IV (3 CREDITS)
313605	1	0.5	NCCER PIPE FITTER II (1 CREDIT)
313600	1	0.5	NCCER PIPEFITTER I (1 CREDIT)
110731	1	0.5	NCCER PIPEFITTER I (1 CREDIT)
313602	2	2	NCCER PIPEFITTER I (2 CREDITS)
110732	2	2	NCCER PIPEFITTER I (2 CREDITS)
313603	3	1.5	NCCER PIPEFITTER I (3 CREDITS)
110733	3	1.5	NCCER PIPEFITTER I (3 CREDITS)
110736	1	0.5	NCCER PIPEFITTER II (1 CREDIT)
313612	2	2	NCCER PIPEFITTER II (2 CREDITS)

110737	2	2	NCCER PIPEFITTER II (2 CREDITS)
313613	3	1.5	NCCER PIPEFITTER II (3 CREDITS)
110738	3	1.5	NCCER PIPEFITTER II (3 CREDITS)
313617	1	0.5	NCCER PIPEFITTER III (1 CREDIT)
313616	2	2	NCCER PIPEFITTER III (2 CREDITS)
313620	1	0.5	NCCER PIPEFITTER IV (1 CREDIT)
313619	2	2	NCCER PIPEFITTER IV (2 CREDITS)
010801	1	0.5	NCCER PIPEFITTING IN AGRISCIENCE (1 CREDIT)
010802	2	2	NCCER PIPEFITTING IN AGRISCIENCE (2 CREDITS)
010803	3	1.5	NCCER PIPEFITTING IN AGRISCIENCE (3 CREDITS)
010804	1	0.5	NCCER Pipefitting in Agriscience II (1 credit)
010805	2	2	NCCER Pipefitting in Agriscience II (2 credit)
010806	3	1.5	NCCER Pipefitting in Agriscience II (3 credit)
313731	1	0.5	NCCER Rigging I (1 Credit)
313732	2	2	NCCER Rigging I (2 Credit)
313733	3	1.5	NCCER Rigging I (3 Credit)
313734	1	0.5	NCCER Rigging II (1 Credit)
313735	2	2	NCCER Rigging II (2 Credit)
313736	3	1.5	NCCER Rigging II (3 Credit)
313737	1	0.5	NCCER Rigging III (1 Credit)
313738	2	2	NCCER Rigging III (2 Credit)
313739	3	1.5	NCCER Rigging III (3 Credit)
321000	1	0.5	NCCER Scaffolding Level I (1 credit)
321001	2	2	NCCER Scaffolding Level I (2 credits)
321002	3	1.5	NCCER Scaffolding Level I (3 credits)
010901	1	0.5	NCCER WELDING IN AGRISCIENCE (1 CREDIT)
010902	2	2	NCCER WELDING IN AGRISCIENCE (2 CREDITS)
010903	3	1.5	NCCER WELDING IN AGRISCIENCE (3 CREDITS)
010904	1	0.5	NCCER Welding in Agriscience II (1 credit)
010905	2	2	NCCER Welding in Agriscience II (2 credits)
010906	3	1.5	NCCER Welding in Agriscience II (3 credits)
313700	1	0.5	NCCER WELDING TECHNOLOGY I (1 CREDIT)
110741	1	0.5	NCCER WELDING TECHNOLOGY I (1 CREDIT)
313702	2	2	NCCER WELDING TECHNOLOGY I (2 CREDITS)
110742	2	2	NCCER WELDING TECHNOLOGY I (2 CREDITS)
313703	3	1.5	NCCER WELDING TECHNOLOGY I (3 CREDITS)
110743	3	1.5	NCCER WELDING TECHNOLOGY I (3 CREDITS)
313705	1	0.5	NCCER WELDING TECHNOLOGY II (1 CREDIT)
110746	1	0.5	NCCER WELDING TECHNOLOGY II (1 CREDIT)
313712	2	2	NCCER WELDING TECHNOLOGY II (2 CREDITS)
110747	2	2	NCCER WELDING TECHNOLOGY II (2 CREDITS)
313713	3	1.5	NCCER WELDING TECHNOLOGY II (3 CREDITS)
110748	3	1.5	NCCER WELDING TECHNOLOGY II (3 CREDITS)
313621	1	0.5	NCCER Welding Technology III (1 credit)
313622	2	2	NCCER Welding Technology III (2 credits)
313623	3	1.5	NCCER Welding Technology III (3 credits)
313624	1	0.5	NCCER Welding Technology IV (1 credit)
313625	2	2	NCCER Welding Technology IV (2 credits)
313626	3	1.5	NCCER Welding Technology IV (3 credits)
110955	1	0.5	OIL AND GAS PRODUCTION OPERATIONS (1 CREDIT)
150000	1	0.5	Physics I
110862	1	0.5	PLTW Engineering Design and Development
110802	1	0.5	PLTW Introduction to Engineering Design
080109	1	0.5	PLTW Principles of Engineering
110810	1	0.5	Principles of Engineering (1 Credit)

110811	2	2	Principles of Engineering (2 Credits)
110864	1	0.5	PRINCIPLES OF ENGINEERING (LSU PARTNERSHIP)
110915	1	0.5	Process Instrumentation I
110916	1	0.5	Process Instrumentation II
110911	1	0.5	PROCESS TECHNICIAN I (1 credit)
110913	2	2	Process Technician I (2 credits)
110914	3	1.5	Process Technician I (3 credits)
110912	1	0.5	PROCESS TECHNICIAN II (1 credit)
110917	2	2	Process Technician II (2 credits)
110918	3	1.5	Process Technician II (3 credits)
110919	1	0.5	Process Technician III (1 credit)
110920	2	2	Process Technician III (2 credits)
110921	3	1.5	Process Technician III (3 credits)
110922	1	0.5	Process Technology I: Equipment
110923	1	0.5	Process Technology II: Unit Systems
110924	1	0.5	Process Technology III: Operations
313727	1	0.5	Quality Controls
150780	1	0.5	ROBOTICS (LSU PARTNERSHIP)
150730	1	0.5	ROBOTICS: ADVANCED (1 CREDIT)
150731	2	2	ROBOTICS: ADVANCED (2 CREDITS)
150723	1	0.5	ROBOTICS: BEGINNER (1 CREDIT)
150729	1	0.5	ROBOTICS: INTERMEDIATE (1 CREDIT)
312700	1	0.5	SHEET METAL I (1 CREDIT)
312702	2	2	SHEET METAL I (2 CREDITS)
312703	3	1.5	SHEET METAL I (3 CREDITS)
313123	1	0.5	SMAW Pipe 5G
313124	1	0.5	SMAW Pipe 6G
110956	1	0.5	T2 SAFETY SYSTEMS FOR OIL AND GAS PRODUCTION (1 CREDIT)
110230	1	0.5	WELDING TECHNOLOGY
080235	3	3	CDF-Qualifying Pre-Apprenticeship II (3 credits)
080056	1	0.5	CDF-Qualifying Pre-Apprenticeship III: CITF Welding
080057	1	0.5	CDF-Qualifying Pre-Apprenticeship IV: CITF Welding
080059	1	0.5	CDF-Qualifying Pre-Apprenticeship II: CITF Millwright
080060	1	0.5	CDF-Qualifying Pre-Apprenticeship III: CITF Millwright
080061	1	0.5	CDF-Qualifying Pre-Apprenticeship IV: CITF Millwright