

Science, Technology, Engineering and Math (STEM)

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| Integrated Pathway | <p>The STEM graduation pathway is an Integrated pathway. Students must:</p> <ol style="list-style-type: none"> 1) pass 9 Carnegie credits of courses from this pathway; 2) including at least one Career Readiness course (one Carnegie credit); 3) attain one Statewide credential (or the LCTCS equivalent certificate / diploma); <u>OR</u> 4) one Core credential (or the LCTCS equivalent certificate / diploma); and 5) two Complementary credentials. |
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| High-Demand Careers Related to this Pathway | <p>5 Star: Chemical Engineers, Chemists, First-Line Supervisors of Production and Operating Workers 4 Star: Biochemists and Biophysicists, Chemical Equipment Operators, Chemical Plant and System Operators, Chemical Technicians, Engineers</p> |
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| Starting Salary Ranges for this Pathway | \$16,000 - \$37,000 |
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STEM Graduation Pathway: Sections

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| 1 | Pathway-Specific Courses | <p>This section lists the course titles and codes for courses specific to this pathway</p> <hr style="border-top: 1px dashed black;"/> <p>Each table also indicates those courses that qualify for the basic 6% CTE adder (<i>course codes beginning with "01", "04", "07", "08", "09", "10", "11" or "31" are CTE courses</i>) as well as those courses that qualify for the additional 6% Career Development Fund (or CDF) payment.</p> |
| 2 | Universal Jump Start Courses | This section lists the course titles and course codes for courses that are part of every Jump Start graduation pathway |
| 3 | Career Readiness Courses | This section lists the course titles and codes for courses that qualify as Career Readiness Courses. Students must pass at least one Carnegie credit of Career Readiness courses, but may apply more than one Career Readiness course to their 9 credit Jump Start graduation requirement. |
| 4 | Internships | This section indicates the three types of internships and the appropriate course codes. |
| 5 | Culminating Credentials | This section indicates the required culminating credential(s) for this pathway. |
| 6 | Sample Schedule | This section provides a sample schedule for students pursuing this graduation pathway. Each high school will develop its own standard schedules for Jump Start students. |

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Jump Start Graduation Pathway Revision Policy

Jump Start graduation pathways are continuously updated. Please use the most updated graduation pathways.

Future changes to Jump Start graduation pathways will always increase student opportunities. *No one will ever need to compare an old pathway with an updated pathway.*

Please send any recommended graduation pathway changes to JumpStart@la.gov using the subject line: *Recommended Graduation Pathway Change*.

The Department reserves the right to make administrative updates to Jump Start graduation pathways, including but not limited to updating course codes, correcting errors on course codes, correcting spelling errors and other similar changes.

The Department reserves the right to delete courses no longer meeting state standards. When this occurs, the Department may add a section to the graduation pathway indicating: "Courses Deleted from this Graduation Pathway."

The Department reserves the right to make changes on credentialing requirements based on guidance provided by the Jump Start Graduation Pathways Review Panel. (Please see the *All Things Jump Start* web portal for information about this Panel.) The Department will also maintain contact with certifying agencies and the Workforce Investment Council (WIC) to update the Statewide, Core and Complementary credentials indicated in each graduation pathway.

Louisiana educators can seek assistance with Jump Start graduation pathways at any time by emailing their questions to JumpStart@la.gov

Help Resources

Please see the updated *All Things Jump Start* web portal: <http://www.louisianabelieves.com/courses/all-things-jump-start/> The updated portal provides easier access to:

- updated Jump Start graduation pathways;
- updated industry credential fact sheets that provide comprehensive details on over 100 Jump Start industry credentials;
- guidance on how your school can implement workplace internships and virtual workplace experiences; *and much, much more.*

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| Pathway-Specific Courses: STEM | | | | |
|--|--------------------|-------------------------|---------------|---------------|
| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
| Advanced Electrical and Electronics Laboratory | 310384 | 1 | ✓ | |
| Advanced Electrical Electronics | 310383 | 1 | ✓ | |
| Advanced Electricity / Electronics | 110610 | 1 | ✓ | |
| Aerospace Engineering | 110830 | 1 | ✓ | |
| Advanced Mathematics – Engineering and Science | TBD | 1 | | |
| AgriScience II | 010302 | 1 | ✓ | |
| AgriScience III | 010303 | 1 | ✓ | |
| Agriscience IV | 010304 | 1 | ✓ | |
| Agriscience - Leadership Development | 010354 | ½ | ✓ | |
| Agriscience - Leadership | 010364 | 1 | ✓ | |
| AP Computer Science A | 061175 | 1 | ✓ | |
| AP Computer Science AB | 061776 | 1 | ✓ | |
| Automation in Manufacturing (C4M) | 110258 | 1 | ✓ | ✓ |
| Basic Coding I | 090500 | 1 | ✓ | |
| Basic Coding II | 090510 | 1 | ✓ | |
| Basic Electricity I | 310400 | 1 | ✓ | |
| Basic Electricity I | 310402 | 2 | ✓ | |
| Basic Electricity I | 310403 | 3 | ✓ | |
| Basic Electricity II | 310410 | 1 | ✓ | |
| Basic Electricity II | 310412 | 2 | ✓ | |
| Basic Electricity II | 310413 | 3 | ✓ | |

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| Biomedical Innovation | 090840 | 1 | ✓ | |
| Business in a Global Economy | 080660 | ½ | ✓ | |
| Chemistry I* | 150401 | 1 | | |
| Chemistry II* | 150402 | 1 | | |
| Chemistry Com.* | 150451 | 1 | | |
| Civil Engineering & Architecture | 110840 | 1 | ✓ | |
| CMAD Drafting | 110570 | 1 | ✓ | |
| CMAD Drafting | 110571 | 2 | ✓ | ✓ |
| CMAD Drafting | 110572 | 3 | ✓ | ✓ |
| Computer Applications | 061110 | 1 | | |
| Computer Architecture | 061111 | 1 | ✓ | |
| Computer Coding I | TBD | 1 | ✓ | |
| Computer Coding II | TBD | 1 | ✓ | |
| Computer Electronics I | 310800 | 1 | ✓ | |
| Computer Electronics I | 310802 | 2 | ✓ | |
| Computer Electronics I | 310803 | 3 | ✓ | |
| Computer Electronics II | 310805 | 1 | ✓ | |
| Computer Electronics II | 310812 | 2 | ✓ | |
| Computer Electronics II | 310813 | 3 | ✓ | |
| Computer Integrated Manufacturing | 110850 | 1 | ✓ | |
| Computer Multimedia Presentations | 040106 | 1 | ✓ | |
| Computer Multimedia Presentations | 040206 | ½ | ✓ | |
| Computer Science I | 061102 | 1 | ✓ | |

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| Computer Science II | 061103 | 1 | ✓ | |
| Computer Science & Software Engineering (using Comp Sci Elective course code) | 061199 | 1 | | |
| Computer Science Applications | tbd | 1 | ✓ | |
| Computer Service Technology I | tbd | 1 | ✓ | |
| Computer Service Technology I | 310820 | 2 | ✓ | |
| Computer Service Technology I | 310821 | 3 | ✓ | |
| Computer Service Technology II | tbd | 1 | ✓ | |
| Computer Service Technology II | 310822 | 2 | ✓ | |
| Computer Service Technology II | 310823 | 3 | ✓ | |
| Computer Systems/Networking I | 061112 | 1 | ✓ | |
| Computer System Networking II | 061136 | 1 | ✓ | |
| Computer Systems | 080850 | ½ | ✓ | |
| Cyber Literacy | 040213 | 1 | ✓ | |
| Cyber Literacy II | TBD | 1 | ✓ | |
| Cyber Science | 040214 | 1 | ✓ | |
| Cyber Society | TBD | 1 | ✓ | |
| Digital Electronics | 110820 | 1 | ✓ | |
| Digital Graphics | 061115 | 1 | ✓ | |
| Drafting and Design I | 311300 | 1 | ✓ | |
| Drafting and Design I | 311302 | 2 | ✓ | |
| Drafting and Design I | 311303 | 3 | ✓ | |
| Drafting and Design II | 311305 | 1 | ✓ | |
| Drafting and Design II | 311312 | 2 | ✓ | |

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| Drafting and Design II | 311313 | 3 | ✓ | |
| Engineering & Design I: Intro to STEM Careers | 080110 | 1 | ✓ | |
| Engineering & Design II: STEM & Industrial Problem Solving | 080120 | 1 | ✓ | |
| Engineering Design (& Product) Development | 110860 | 1 | ✓ | |
| Environmental Sustainability | tbd | 1 | | |
| General Technology Education | 110010 | 1 | ✓ | |
| Geometry* | 160323 | 1 | | |
| Human Body Systems | 090820 | 1 | ✓ | |
| Independent Study in Technology Applications I | 061118 | 1 | ✓ | |
| Independent Study in Technology Applications I | 061119 | 2 | ✓ | |
| Independent Study in Technology Applications II | 061123 | 1 | ✓ | |
| Independent Study in Technology Applications II | 061124 | 2 | ✓ | |
| Introduction to Computer Science | tbd | 1 | ✓ | |
| Introduction to Engineering Design: Engineering & Innovation | 110799 | ½ | ✓ | |
| Introduction to Engineering Design: Engineering & Innovation | 110800 | 1 | ✓ | |
| Introduction to Fabrication P-Tech and Machining (C4M) | 110259 | 1 | ✓ | ✓ |
| Introduction to Hazardous Materials | 311922 | 1 | ✓ | |
| Introduction to Logistics | 313831 | 1 | ✓ | |
| Introduction to Manufacturing (C4M) <i>Also called: Manufacturing Process and Team Building</i> | 110256 | 1 | ✓ | ✓ |
| LCTCS course(s) that generate Dual Enrollment credit aligned with approved pathway courses | | | | |
| Maintenance Assistant | 313836 | ½ | ✓ | |
| Manufacturing Tools & Equipment (C4M) | 110257 | 1 | ✓ | ✓ |
| Medical Interventions | 090830 | 1 | ✓ | |

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| NCCER Carpentry I | 110701/313300 | 1 | ✓ | ✓ |
| NCCER Carpentry I | 110702/313302 | 2 | ✓ | ✓ |
| NCCER Carpentry I | 110703/313303 | 3 | ✓ | ✓ |
| NCCER Carpentry II | 110706/313305 | 1 | ✓ | ✓ |
| NCCER Carpentry II | 110707/313312 | 2 | ✓ | ✓ |
| NCCER Carpentry II | 110708/313313 | 3 | ✓ | ✓ |
| NCCER Carpentry III | 110700 | 1 | ✓ | ✓ |
| NCCER Carpentry III | 110704 | 2 | ✓ | ✓ |
| NCCER Carpentry III | 110705 | 3 | ✓ | ✓ |
| NCCER Carpentry IV | 110709 | 1 | ✓ | ✓ |
| NCCER Carpentry IV | 110710 | 2 | ✓ | ✓ |
| NCCER Carpentry IV | 110714 | 3 | ✓ | ✓ |
| NCCER Carpentry in AgriScience | 010601 | 1 | ✓ | ✓ |
| NCCER Carpentry in AgriScience | 010602 | 2 | ✓ | ✓ |
| NCCER Carpentry in AgriScience | 010603 | 3 | ✓ | ✓ |
| NCCER Construction Technology | 110110 | 1 | ✓ | ✓ |
| NCCER Core | 311720 | 1 | ✓ | ✓ |
| NCCER Electrical I | 110711/313400 | 1 | ✓ | ✓ |
| NCCER Electrical I | 110712/313402 | 2 | ✓ | ✓ |
| NCCER Electrical I | 110713/313403 | 3 | ✓ | ✓ |
| NCCER Electrical II | 110716/313405 | 1 | ✓ | ✓ |
| NCCER Electrical II | 110717/313412 | 2 | ✓ | ✓ |
| NCCER Electrical II | 110718/313413 | 3 | ✓ | ✓ |

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| NCCER Heavy Equipment | 313722 | 1 | ✓ | ✓ |
| NCCER Heavy Equipment | 313723 | 2 | ✓ | ✓ |
| NCCER HVAC I | 310100 | 1 | ✓ | ✓ |
| NCCER HVAC I | 310102 | 2 | ✓ | ✓ |
| NCCER HVAC I | 310103 | 3 | ✓ | ✓ |
| NCCER HVAC II | 310105 | 1 | ✓ | ✓ |
| NCCER HVAC II | 310112 | 2 | ✓ | ✓ |
| NCCER HVAC II | 310113 | 3 | ✓ | ✓ |
| NCCER Industrial Maintenance Electrical & Instrumentation | 313730 | 2 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic I | 110721/313500 | 1 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic I | 110722/313502 | 2 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic I | 110723/313403 | 3 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic II | 110726/313505 | 1 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic II | 110727/313512 | 2 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic II | 110728/313513 | 3 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic III | 313517 | 1 | ✓ | ✓ |
| NCCER Instrumentation Control Mechanic IV | 313520 | 1 | ✓ | ✓ |
| NCCER Insulating | 313830 | 2 | ✓ | ✓ |
| NCCER Millwright Level 1 | 313714 | 1 | ✓ | ✓ |
| NCCER Millwright Level 2 | 313715 | 1 | ✓ | ✓ |
| NCCER Millwright Level 3 | 313716 | 1 | ✓ | ✓ |
| NCCER Millwright Level 4 | 313717 | 1 | ✓ | ✓ |
| NCCER Pipefitting I | 110731/313600 | 1 | ✓ | ✓ |

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| NCCER Pipefitting I | 110732/313602 | 2 | ✓ | ✓ |
| NCCER Pipefitting I | 110733/313603 | 3 | ✓ | ✓ |
| NCCER Pipefitting II | 110736/313605 | 1 | ✓ | ✓ |
| NCCER Pipefitting II | 110737/313612 | 2 | ✓ | ✓ |
| NCCER Pipefitting II | 110738/313613 | 3 | ✓ | ✓ |
| NCCER Pipefitting III | 313617 | 1 | ✓ | ✓ |
| NCCER Pipefitting IV | 313620 | 1 | ✓ | ✓ |
| NCCER Plumbing I | 321500 | 1 | ✓ | ✓ |
| NCCER Plumbing I | 321502 | 2 | ✓ | ✓ |
| NCCER Plumbing I | 321503 | 3 | ✓ | ✓ |
| NCCER Plumbing II | 321505 | 1 | ✓ | ✓ |
| NCCER Plumbing II | 321512 | 2 | ✓ | ✓ |
| NCCER Plumbing II | 321513 | 3 | ✓ | ✓ |
| NCCER Welding in AgriScience I | 010901 | 1 | ✓ | ✓ |
| NCCER Welding in AgriScience II | 010902 | 2 | ✓ | ✓ |
| NCCER Welding in AgriScience III | 010903 | 3 | ✓ | ✓ |
| NCCER Welding Technology I | 110741/313700 | 1 | ✓ | ✓ |
| NCCER Welding Technology I | 110742/313702 | 2 | ✓ | ✓ |
| NCCER Welding Technology I | 110743/313703 | 3 | ✓ | ✓ |
| NCCER Welding Technology II | 110748/313705 | 1 | ✓ | ✓ |
| NCCER Welding Technology II | 110747/313712 | 2 | ✓ | ✓ |
| NCCER Welding Technology II | 110748/313713 | 3 | ✓ | ✓ |
| Oil & Gas | 110955 | 1 | ✓ | ✓ |

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| Physical Science* | 150802 | 1 | | |
| Physics* | 150100 | 1 | | |
| Physics II* | 150701 | 1 | | |
| Principles of Engineering | 110810 | 1 | ✓ | |
| Principles of the Biomedical Sciences | 090810 | 1 | ✓ | |
| Process Technician I- Introduction to PTECH | 110911 | 1 | ✓ | |
| Process Technician II- Plant Safety | 110912 | 1 | ✓ | |
| Robotics-Advanced | 150730 | 1 | | |
| Robotics-Beginning | 150723 | 1 | | |
| Robotics-Intermediate | 150729 | 1 | | |
| Safety and Construction Skills: Year 1 | 313724 | 2 | ✓ | |
| Safety and Construction Skills: Year 2 | 313725 | 2 | ✓ | |
| T2 Safety Systems for Oil and Gas Production | 110956 | 1 | ✓ | ✓ |
| Workplace Safety | 311923 | 1 | ✓ | |
| Workplace Safety | 311924 | 2 | ✓ | |

*- Courses that count towards an academic requirement cannot also count towards the requirement of 9 Carnegie credits for a graduation pathway.

Note: *course codes beginning with "01", "04", "07", "08", "09", "10", "11" or "31" are CTE courses that qualify for the basic 6% CTE adder payment.*

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| Universal Jump Start Courses – these courses are part of every Jump Start graduation pathway |
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| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
|--|-------------------|---|--------|--------|
| Accounting | 040101 | 1 | ✓ | |
| Accounting II | 040104 | 1 | ✓ | |
| Assistive Technology for the Visually Impaired | 080900 | 1 | | |
| Braille I | 080902 | 1 | | |
| Braille II | 080903 | 1 | | |
| Business Communications | 040305 | 1 | ✓ | |
| Business Communications | 125030 | 1 | | |
| Business Computer Applications (BCA) | 040400 | 1 | ✓ | |
| Business Enterprises for the Visually Impaired | 080901 | 1 | | |
| Business Law | 040303 | ½ | ✓ | |
| Business Math* | 040307 | 1 | ✓ | |
| Career Success Skills | 080407 | 1 | ✓ | |
| Computer Technology Literacy | 040220 | 1 | ✓ | |
| Customer Service | 080720 | ½ | ✓ | |
| Customer Service | 041001 | 1 | ✓ | |
| Entrepreneurship (Business) | 040110 | 1 | ✓ | |
| Entrepreneurship | 041040 | 1 | ✓ | |
| Entrepreneurship II | 041041 | 1 | ✓ | |
| Entrepreneurship (NAF) | 080685 | ½ | ✓ | |
| Financial Literacy (formerly Financial Mathematics) INACTIVE COURSE CODE | 040304 | Please use course code 160345 for this course | | |
| Financial Literacy (formerly Financial Mathematics)* | 160345 | 1 | | |

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| First Responder | 090710 | ½ | ✓ | |
| First Responder | 090711 | 1 | ✓ | |
| First Responder | 090712 | 2 | ✓ | |
| Introduction to Business Computer Applications (IBCA) | 040401 | 1 | ✓ | |
| JAG III | 042030 | 1 | ✓ | |
| JAG IV | 042040 | 1 | ✓ | |
| JR ROTC III | 170003 | 1 | | |
| JR ROTC IV | 170004 | 1 | | |
| Keyboarding | 040229 | 1 | ✓ | |
| Keyboarding | 040225 | ½ | ✓ | |
| Keyboarding Applications | 040226 | ½ | ✓ | |
| Law Studies | 220506 | 1 | | |
| Managerial Accounting | 080691 | ½ | ✓ | |
| Personal Finance | 041022 | ½ | ✓ | |
| Principles of Business | 040306 | 1 | ✓ | |
| Principles of Finance | 080670 | 1 | ✓ | |
| Principles of Marketing I | 041025 | 1 | ✓ | |
| Principles of Marketing II | 041026 | 1 | ✓ | |
| Speech I | 051101 | 1 | | |
| Speech II | 051102 | 1 | | |
| Technical Math* | 165010 | 1 | | |
| Technical Reading and Writing* (NOT a TOPS Tech-qualifying course) | 125010 | 1 | | |
| Technical Writing* [TOPS Tech-qualifying English course] | 120350 | 1 | | |

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| Word Processing | 040203 | 1 | ✓ | |
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*- Courses that count towards an academic requirement cannot also count towards the requirement of 9 Carnegie credits for a graduation pathway.

Note: *course codes beginning with "01", "04", "07", "08", "09", "10", "11" or "31" are CTE courses that qualify for the basic 6% CTE adder payment.*

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| Career Readiness Courses |
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These courses all qualify as Career Readiness courses. Every Jump Start student must take a minimum of one Carnegie credit of Career Readiness courses.

There is no limit on the number of Career Readiness course credits a student may apply to the 9 CTE course credit requirement for the Jump Start Career Diploma.

Career Readiness courses are universal courses – they apply to every Jump Start graduation pathway.

| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
|---|-------------|------------------|--------|--------|
| Advanced Career Readiness (including regionally-developed Career Readiness Courses) | 080410 | 1 | ✓ | |
| AgriScience I (Career Readiness)* | 010301 | 1 | ✓ | |
| Basic Career Readiness | 080409 | 1 | ✓ | |
| Education for Careers | 080400 | ½ | ✓ | |
| Education for Careers | 080401 | 1 | ✓ | |
| Education for Careers Part I | 080405 | ½ | ✓ | |
| Education for Careers Part II | 080406 | ½ | ✓ | |
| JAG I | 042010 | 1 | ✓ | |
| JAG II | 042020 | 1 | ✓ | |
| Journey to Careers (Career Readiness) | 080403 | 1 | ✓ | |
| Journey to Careers Part 1 (Career Readiness) | 080402 | ½ | ✓ | |
| Journey to Careers Part 2 (Career Readiness) | 080404 | ½ | ✓ | |

*- Courses that count towards an academic requirement cannot also count towards the requirement of 9 Carnegie credits for a graduation pathway.
 Note: *course codes beginning with "01", "04", "07", "08", "09", "10", "11" or "31" are CTE courses that qualify for the basic 6% CTE adder payment.*

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Internships, Cooperative Courses and Virtual Workplace Experience Courses

Cooperative courses, Virtual Workplace Experience courses and Internships (with the exception of Non-CTE Internships) are universal courses - they apply to every Jump Start graduation pathway.

Internships

There are three types of internships:

- 1) **CDF-Qualifying Internships** where students are placed in a company that operates in one of the WIC-approved high-demand industry sectors. CDF-Qualifying Internships qualify for *both* the 6% MFP adder paid for all CTE courses *and* the 6% Career Development Fund (CDF) adder;
- 2) **CTE Internships** where students are placed in a company that operates in any other industry sectors. CTE Internships qualify *only* for the 6% MFP adder for all CTE courses; and
- 3) **Non-CTE internships** where students are placed in a non-business internship. Non-CTE Internships do not qualify for any MFP adder. Examples of Non-CTE Internships include internships at a school office, a volunteer organization or a religious organization. **Non-CTE Internships are not part of any Jump Start graduation pathway.**

WIC-Approved High-Demand Industry Sectors

Internships that qualify for the 6% CDF payment must be in a WIC-approved high-demand industry sector.

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| <ul style="list-style-type: none"> • Automotive Service/Repair • Construction Crafts • Culinary (<u>only</u> for students pursuing the statewide ProStart/ SafeServ credentials) | <ul style="list-style-type: none"> • Healthcare • HVAC • Information Technology | <ul style="list-style-type: none"> • Manufacturing • Pharmacy • Transportation and Logistics |
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| Internships | | | | |
|--|-------------|------------------|--------|--------|
| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
| CDF-Qualifying CTE Internship I | 080202 | 1 | ✓ | ✓ |
| CDF-Qualifying CTE Internship I | 080200 | 2 | ✓ | ✓ |
| CDF-Qualifying CTE Internship II | 080203 | 1 | ✓ | ✓ |
| CDF-Qualifying CTE Internship II | 080201 | 2 | ✓ | ✓ |
| CTE Internship I | 110402 | 1 | ✓ | |
| CTE Internship I | 110403 | 2 | ✓ | |
| CTE Internship II | 110404 | 1 | ✓ | |
| CTE Internship II | 110405 | 2 | ✓ | |
| Non-CTE Internships are <u>not</u> part of any Jump Start graduation pathway. | | | | |
| Non-CTE Internship I | 400200 | 1 | | |
| Non-CTE Internship I | 400210 | 2 | | |
| Non-CTE Internship II | 400220 | 2 | | |
| Non-CTE Internship II | 400230 | 1 | | |

| Virtual Workplace Experience Courses approved for 2016-2017 | | | | |
|--|-------------|------------------|--------|--------|
| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
| Virtual Workplace Experience I | 080204 | ½ | ✓ | |
| Virtual Workplace Experience I | 080205 | 1 | ✓ | |
| Virtual Workplace Experience II | 080206 | ½ | ✓ | |
| Virtual Workplace Experience II | 080207 | 1 | ✓ | |

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| Cooperative Courses | | | | |
|--|--------------------|-------------------------|---------------|---------------|
| Course Title | Course Code | Carnegie Credits | CTE 6% | CDF 6% |
| Cooperative AgriScience Education I | 010323 | 3 | ✓ | |
| Cooperative AgriScience Education II | 010325 | 3 | ✓ | |
| Cooperative Family and Consumer Services | 100800 | 3 | ✓ | |
| Cooperative Health Occupations | 090004 | 3 | ✓ | |
| Cooperative Marketing Education I | 041010 | 3 | ✓ | |
| Cooperative Marketing Education II | 041011 | 3 | ✓ | |
| Cooperative Office Education | 040205 | 3 | ✓ | |
| Cooperative Technology Education | 110098 | 3 | ✓ | |
| General Cooperative Education I | 080300 | 3 | ✓ | |
| General Cooperative Education I | 080300 | 3 | ✓ | |

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Culminating Credential(s)

Statewide Credentials

| | | |
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| Culminating Credentials/ Certifying Agencies | <u>ADVANCED:</u> Attain a Louisiana post-secondary institution Technical Diploma (TD) or above aligned with this pathway | <u>BASIC:</u> 1) American Petroleum Institute (API) T2 Production Safety Systems OR 2) Attain a Louisiana post-secondary institution Certificate of Technical Studies (CTS) aligned with this pathway |
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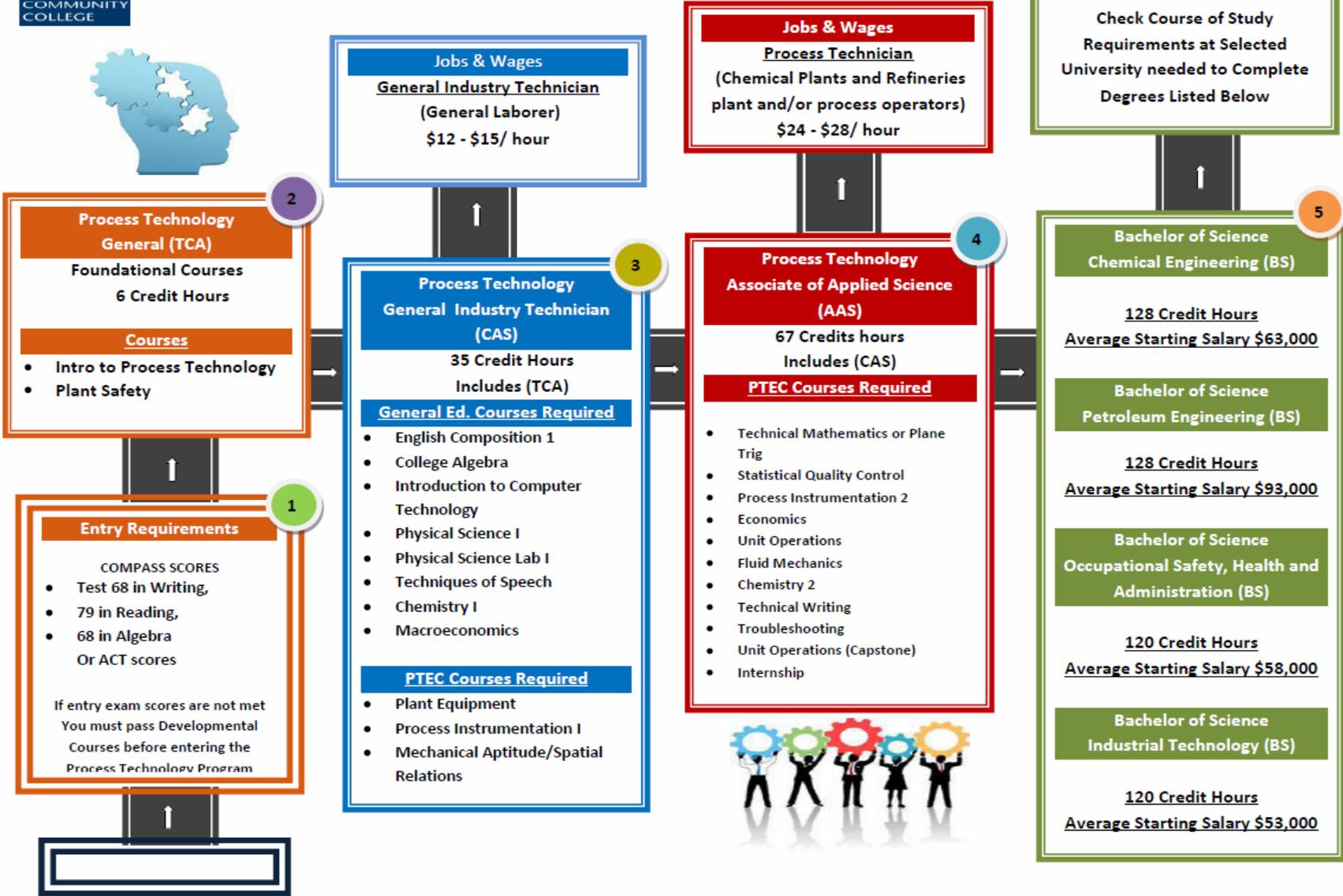
Regional Credentials

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| Culminating Credential(s) / Certifying Industry Agency(ies) | <p><u>Core Credentials: students must attain one credential from the list below:</u></p> <ol style="list-style-type: none"> 1) Technical Competency Area (TCA) in General Industry Technician – 6 college credits: INDT 1010 and INDT 1030 OR PTEC 1010 and PTEC 2030AVID ProTools User 2) Completion of NCCER Core and Designated Helper Modules in the following areas: Carpentry, Electrical, Industrial Maintenance Mechanics, Pipefitter 3) Micro-Enterprise Credential (Baton Rouge Area Chamber; BRAC) <hr/> <p><u>Complementary Credentials: students must attain two credentials from the list below:</u></p> <p>Recommended Safety Complementary Credentials</p> <p style="background-color: yellow;">Students may apply only one Safety Complementary Credential towards their graduation requirements</p> <ol style="list-style-type: none"> 1) Basic Safety Orientation - Association of Reciprocal Safety Councils 2) First Aid for Students Certification - Red Cross or approved equivalent* 3) OSHA 10 – General Industry - OSHA Certificate of Completion 4) OSHA 10 – Construction - OSHA Certificate of Completion <p style="background-color: yellow;">* - all First Aid certifications must include CPR and AED. To give districts and charter schools maximum flexibility to comply with the First Aid requirements of HB 542, districts and charter schools can provide the Jump Start team with evidence that the First Aid certification they're using includes all required components as well as a practical certification.</p> <p>Recommended Computer Literacy Complementary Credentials</p> <ol style="list-style-type: none"> 5) Internet and Computing Core Certification (IC³) – Certiport |
|--|---|

| Pathway | Science, Technology, Engineering and Math (STEM) |
|--|--|
| | <p>6) Microsoft Excel Specialist – Microsoft and Certiport 7) Microsoft PowerPoint Specialist – Microsoft and Certiport 8) Microsoft Word Specialist – Microsoft and Certiport 9) Microsoft Office Specialist Other – Microsoft and Certiport</p> <p>Other Recommended Complementary Credentials</p> <p>10) National Career Readiness Certificate WorkKeys Silver, Gold or Platinum - ACT 11) NCCER Core – National Center for Construction Education Research (NCCER)</p> <p>Additional Approved (But Not Recommended) Complementary Credentials</p> <p>12) OSHA 2255 Principles of Ergonomics – OSHA Certificate of Completion 13) OSHA 3115 Fall Projection – OSHA Certificate of Completion</p> |
| <p>Credentials No Longer Authorized for this Pathway</p> | <p>Complementary Credentials No Longer Approved for this Pathway</p> <ul style="list-style-type: none"> • OSHA 7200 <p>See the Jump Start Policy Regarding OSHA Courses / Credentials (available for download from the Jump Start website) for additional details</p> |



Manufacturing Career Cluster Process Technology Career Pathway



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|---------|--|
| Pathway | Science, Technology, Engineering and Math (STEM) |
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Sample Schedule

Each schedule is *only one example* of how a student can meet the requirements of this pathway and graduate on time with the required culminating credential(s).

Each high school will develop its own standard schedules for Jump Start students based on the courses available to its students (in school, at the local technical college, or via Course Choice).

| Sample Schedule – Statewide Credential | | | |
|---|--|--|---|
| 9 th Grade | 10 th Grade | 11 th Grade | 12 th Grade |
| Algebra I or Geometry English I Biology Civics IBCA Basic Career Readiness Physical Education I | Geometry or Algebra II English II Chemistry American History Computer Science 101 (DE) NCCER Core Physical Education II / Health | Algebra II or Advanced Math or College Algebra English III Process Technician I (DE) Chemistry II (DE) (Chem 101 or 104) <i>Elective Course</i> <i>Elective Course</i> <i>Elective Course</i> | Advanced Math or College Algebra (DE) or College Plane Trig. (DE) English IV or English IV (DE) Physical Science II (DE) Advanced Career Readiness Process Technician II (DE) <i>Elective Course</i> <i>Elective Course</i> |
| 7 credits | 7 credits | 7 credits | 7 credits |
| Credentials Earned by this Hypothetical Student | Certificate of Technical Studies (CTS) – LCTCS Campus | | |
| <i>Bold italicized courses count as one of the required 9 Carnegie credits for graduating via this CTE pathway</i> | | | |

| | |
|---------|---|
| Pathway | Science, Technology, Engineering and Math (STEM) |
|---------|---|

| Sample Schedule – Regional Credential | | | |
|---|--|---|--|
| 9 th Grade | 10 th Grade | 11 th Grade | 12 th Grade |
| Algebra I or Geometry English I Biology Civics IBCA Basic Career Readiness Physical Education I | Geometry or Algebra II English II Chemistry American History Computer Science 101 (DE) NCCER Core Physical Education II / Health | Algebra II or Advanced Math or College Algebra English III Process Technician I (DE) Chemistry II (DE) (Chem 101 or 104) <i>Elective Course</i> <i>Elective Course</i> <i>Elective Course</i> | Advanced Math or College Algebra (DE) or College Plane Trig. (DE) English IV or English IV (DE) Physical Science II (DE) Advanced Career Readiness Process Technician II (DE) <i>Elective Course</i> <i>Elective Course</i> |
| 7 credits | 7 credits | 7 credits | 7 credits |
| Credentials Earned by this Hypothetical Student | Core Credential | | Complementary Credentials |
| | PTECH General Industry Technician (TCA) – LCTCS Campus | | 1) Basic First Aid 2) Microsoft Office Word Specialist (MOS) – Microsoft and Certiport |
| <i>Bold italicized courses count as one of the required 9 Carnegie credits for graduating via this CTE pathway</i> | | | |

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|---|
| <i>Every Pathway Can be Adapted for Students Meeting Act 833 (2014) Eligibility Criteria</i> |
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Every Jump Start graduation pathway can be adapted for students with disabilities who meet Act 833 (2014) eligibility criteria. Students must complete nine credits of CTE courses from the courses listed in the pathway. The IEP team has the authority to determine the credentialing level a student must achieve for the purposes of graduation (analogous to using individual performance criteria to meet EOC requirements for the purposes of graduation).

IEP teams with questions about how to adapt this graduation pathway for their student should contact JumpStart@la.gov