

# Agenda Items: February 9, 2023 Board Meeting

Q&A

## ITEM A.1 (AGENDA REVIEW)

What percentage of our students are NOT enrolled in AP, IB, dual credit, dual enrollment, CTE/IBC, etc.?

**\*UPDATED 2/7/23\***

Twenty percent of students are not enrolled in any pathway.

What percentage of our students are enrolled in more than one of these pathways?

**\*UPDATED 2/7/23\***

Thirty-seven percent of students are enrolled in more than one pathway.

Please include the attachment that was shared in the board referral request on industry-based certification data as well as the questions and responses. (referral #3471).

The document is [here](#).

Please attach the spreadsheet – Career & Technical Education (CTE) programs of study - that was part of the May Q&A.

The document is [here](#) and also [included with the Q&A](#).

What systems are in place to evaluate the effectiveness of Career & Technical Education (CTE) programs (students are actually earning their industry-based certifications (IBC) and students are actually gainfully employed in their field after high school) and how are you evaluating those systems?

It is inherently challenging to track employment after high school due to barriers to receiving the employment data from state and federal sources. Even with that data, it is challenging to evaluate whether the job is in the student's field. For example, one cannot tell from government data if a student who earned an HVAC certification and is working for Exxon Mobile is using their industry-based certification in their job. To partially compensate for this lack of information, we use graduation exit surveys to learn where students say they will be working and what they will be doing. While it will not provide complete data, it should lead to enough information to evaluate how effective the IBC programs are in leading to related gainful employment.

Within our power now is to measure how effectively students are earning their industry-based certifications. We have found that we need to do this analysis on a campus-by-campus basis because too many of the barriers to students completing their IBCs are localized to the campus. To mitigate these barriers, Career Readiness holds regular meetings with campus leadership and has district specialists who work with campus staff. They work with teachers to ensure that the material is being taught with fidelity to maximize the success of students earning their IBCs. They also work with counselors and Tier II

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leaders to ensure that the proper courses are being offered and that students are being scheduled into those courses. As a final step, they constantly monitor the number of IBC vouchers ordered, completed, and recorded to ensure that students are completing that important step. Annual review meetings are held with the leadership at each campus to review labor market data, enrollment, completion, and IBC outcomes of the students.

**Are you evaluating the students that could qualify for the College, Career, and Military Readiness (CCMR) outcomes bonus funding? Are there students that are close to meeting the criteria but just need an extra boost? Please explain.**

The CCMR outcomes bonus funding can be earned through one of two pathways:

- 1) A student earns college-ready status through standardized test scores (SAT, ACT, TSIA2) and enrolls in college the following fall semester; or
- 2) A student earns an industry-based certification (IBC) and enrolls in college the following fall semester.

We have found that approximately 80% of students who enrolled in college and were close but did not meet one of the two pathways were closer on the college-ready pathway. With these students we are working to strategically prepare them to score as college-ready through the SAT or TSIA2, depending on the student's particular circumstances. This is where tools such as Khan Academy can be leveraged.

Increasing CCMR outcome bonus among students in the IBC pathway involves encouraging those students who earn the IBC but may not see themselves as "college material" to explore community college opportunities to expand on the credentials they have already earned in high school. There are currently eight Career Readiness advisors embedded on campuses that specialize in this work.

Additionally, we work to ensure that students complete their IBC. The CTE teacher administering the exams provide the instruction and make determinations regarding the knowledge and skill building needed by the students to be successful. For the platforms that we have where specific objective mastery can be pinpointed, we provide teachers with additional resources where available and pay for an additional exam to give the student the opportunity to earn the IBC.

**How are you evaluating the correlation between the job market demands/what students and families want and what industry-based certifications (IBCs) we offer?**

The Career Readiness team is constantly monitoring data from the Texas Workforce Commission and the Houston-Galveston Area Council. Additionally, it maintains continual communication with its Business Advisory Council as well as other business partners to maintain a sense of what employers are wanting and to ensure that our programs are providing students with the knowledge and skills valued in the industry.

On the student/family side, before there are changes to Career & Technical Education programs offered

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on a campus, the campus conducts a community survey to learn about interests from students, families, and local businesses. After the survey is conducted, Career Readiness staff meet with campus leaders to discuss where there is overlap between the community interest and regional jobs data.

Annually, Career Readiness staff meets with campus administration to discuss program enrollment and completion rates, and whether it is best to continue with the program, adjust it, or transition to something else.

Finally, if a student's zoned campus does not offer a program the student wishes to join, then they are able to either apply to the programs through magnet or through a CTE transfer with the Office of School Choice.

### What barriers exist to increase both student participation/completion and increasing access to Career & Technical Education (CTE) and industry-based certifications (IBCs)?

We face many of the same barriers and challenges as other academic areas when it comes to learning loss and teacher retention. Finding certified and qualified teachers able to teach certain courses is a regular barrier in some CTE pathways. Some of our greater barriers come with logistics and scheduling with individual campuses. When students fall behind in academic core classes, completion of programs of study proves more challenging. We are continuing to work with campus leaders and counseling to assist with master scheduling of courses and sequencing for programs. Often the certifying entity itself has requirements that are more straining on the district than previously required. We are working with Legal Services and other partnering districts to find solutions. We have increased experiential opportunities for students to engage with different industry partners. Students have participated in multiple Career Test Drives that provide hands-on learning about multiple trades. We are engaging middle school students by providing event to expose them to non-traditional careers like our "Girls in Industry Day" event coming up during February CTE Month.

### ITEM A.1 (BOARD MEETING)

#### What is the long-term vision/plan for Grow Your Own?

One initiative within the World-Class Talent Commitment of the strategic plan is Grow Your Own Programs. The scope of this initiative is to provide prospective future teachers with skills, knowledge, and certification to lead as teachers. Our own HISD Alternative Certification Program is a part of this initiative, and we significantly increased participation in this program for School Year 2022-2023, adding a mid-year cohort and leveraging ESSER funds to make the program cost-free for participants. The program will continue to be cost-free for participants in SY 2023-2024. The Talent Office has been engaged in ongoing exploration, collaboration, and planning with a range of IHE (institution of higher education) partners, in particular the University of Houston, the University of Houston-Downtown, and

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the University of Houston-Clear Lake. The purpose has been to identify areas for partnership that will allow HISD to establish coordinated, prioritized, financially supported and sustainable programs for future teachers, with a special focus on the target populations of HISD graduates and HISD teaching assistants. With support from the Houston Endowment, we anticipate registering one or more partnerships as Department of Labor apprenticeship programs soon. While these various elements of work continue simultaneously, we are deliberately building a comprehensive Grow Your Own program plan over a six-month period that began in January. We look forward to sharing more on the long-term vision and plan when that work is finished.

#### Are all schools using T-TESS?

Yes. We adopted the Texas Teacher Evaluation and Support System (T-TESS) rubric as the district's instructional framework and partnered with Region 4 Educational Service Center to train 100% of campus-based appraisers. After early input from a teacher design committee and a technical committee, we designed the T-TESS teacher evaluation system to include multiple measures of performance: 40% instructional practice, 40% student growth, and 20% student feedback. In these design decisions, we considered our priorities to provide teachers with fair, accurate, meaningful information while also building a foundation for a successful Teacher Incentive Allotment program. We are engaged in ongoing calibration activities across schools, engaging school leaders in recurring step-backs to examine trends in instructional practice and observation ratings. Given our interest in effective change management, we announced that teachers' first summative ratings under T-TESS will be in the spring of 2024, allowing time to analyze first-year experiences and adjust as needed.

#### Please describe the personalized outreach to newly recruited teachers. Please describe support for Principals around talent management

Personalized outreach to newly recruited teachers is listed in the Superintendent's response as one of the targeted supports for newly recruited teachers in the identified campuses for this constraint progress measure. First, the HISD Alternative Certification Program and Teacher Career Development teams – each of which provides direct and indirect support to newly recruited teachers – will provide more hours of support to teachers in the identified campuses over the next five months. Second, we will engage in additional personalized outreach by email and/or telephone to newly recruited teachers in these schools before and after we administer our new Intent to Return process in February and March.

Strategic Talent Management is one of the nine initiatives within the World-Class Talent commitment of the strategic plan. The purpose of this initiative is to provide proactive and strategic support to principals and other hiring managers. The Talent Office has a Talent Management department made up of Talent Managers, who each have a caseload of principals or central office supervisors they support as a one-stop-

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shop liaison for anything related to talent/people management. In November and December, principals were assigned to their new (or continuing) Talent Manager, and we have received very positive feedback about the day-to-day supports they are providing. Looking ahead, one example of coordinated support will relate to a new district-wide staff survey. As the district introduces a new instructional culture survey of teachers (and other campus-based staff) this spring, Talent Managers will support principals in reviewing and planning based on the feedback provided by their teachers (and other campus-based staff).

### ITEM A.2

#### Please explain Function 91 and Function 97.

Function 91 is our recapture payment; the description is what TEA calls this function.

Function 97 is our Tax Reinvestment Zone Payments (TIRZ). These are contractual agreements by which the taxes we collect in these zones are remitted to the City of Houston to fund a portion of the overall City plan in these zones. The City of Houston in return sends a portion back to HISD for instructional facility support.

### ITEM A.4

#### Where is this report?

HERC is making edits to the final draft as recent reports are finalized. The final report will be shared with trustees at the Feb. 9 board meeting.

### ITEM H.1

#### How were these campuses determined to be the most needed? Criteria?

The need for roof replacement was determined by the Facilities Conditions Assessment in conjunction with the HISD master roofer who determined that the specified schools were deemed critical at this time.

#### Why is Atlas listed two times? And two separate amounts?

Three (3) individual roofing bid packages were developed to obtain the best prices and therefore each bid package is a stand-alone package; Atlas Roofing submitted the best cost proposal for two out of the three bid packages. Each vendor can bid on as many packages as they choose. Each roofing bid package has a specified scope for the schools within the package and cost may vary according to project scope.

### ITEM H.3

**What other campuses can benefit from this idea? What foreseeable occurrences would cause the cost to increase from \$500k to over \$1M?**

The scope of this project was developed and funded by the campus. Any academic benefit would require a response from the campus-based administration.

The budget for this project increased due to the availability of additional funding provided to the school by external sources.

**What function are these funds allocated from? How was this school selected?**

This would be funded from Function 81 Facilities acquisition and construction. The funding derived from an appropriations HUD grant from Congresswoman Sheila Jackson Lee's office. The project was started at Booker T. Washington High Schools campus in 2016. Booker T. Washington students presented the project to the community and Congresswoman's office became interested and wanted to assist in Booker T. Washington Vision Project.

### ITEM I.1

**Which campuses have been identified to have asbestos? What exactly is the purpose of a project management? Why can't the asbestos just be removed?**

This preemptive project allows the district to hire a third-party consulting firm for sample testing and project management should asbestos be identified in a district building.

**Which campuses have a culinary program? Why is there no advertising of this program?**

Currently six campuses offer Culinary Arts program of study. All Career & Technical Education programs are located on the department website, along with School Choice and the district "School Finder" tool. Campuses also host their own events to promote their programs to students and parents.

### ITEM I.4

**Texas Connections Academy enrollment decreased? I thought they had a wait list. By how many?**

Texas Connections enrollment for 2022-2023 is 8,967 compared 2021-2022 enrollment of 10,127 based on fall snapshot. As schools have returned to in-person learning, the demand for a virtual environment has significantly declined.

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**It looks like many of our revenue streams are decreasing. Have we thought of other revenue streams? Please share examples of what other districts in the region and in Texas are doing.**

Overall revenues are increasing for the General Fund, Debt Service, and Nutrition Services.

In the General Fund, property tax revenue is decreasing primarily due to the impact of a lower tax rate adopted in October 2022 which is determined through TEA's Voter Approved Tax Rate process even though certified property values were higher compared to certified estimated values.

In school districts, there are two primary ways to generate new retainable revenues (net of recapture).

1) increase enrollment, average daily attendance, ensure students are properly identified in special categories like economically disadvantaged, and

2) Voter Approved Tax Rate (VATR) election asking voters to approve an increase in the district's maintenance and operations tax rate.

In the Debt Service Fund, property taxes are increasing due to higher certified property values compared to certified estimated values.

In the Nutrition Services Fund, the primary driver is a temporary increase in federal reimbursement M rates for school meals.

### **REFERENCING THE LONE STAR GOVERNANCE MANUAL FOR VISION AND GOALS 4 (CPMS):**

**Is the status of each Constraint Progress Measure able to be updated multiple times during the school year? How will the monitoring calendar be adjusted? (Preparing to Focus)**

Yes, each of these will have data that can be shared multiple times. The monitoring calendar is being updated and will be included in the March board meeting agenda items if these CPMs are deemed predictive of the constraint itself by Trustees in February.

**What are the annual targets for these proposed Constraint Progress Measures? (Approaches Focus)**

Once the Trustees have given administration the approval to move forward with these recommended CPMs, annual targets will be set and reported during the first round of CPM reporting.

**How will these Constraint Progress Measures (CPM) challenge the organization to focus on the vision? (Meets Focus)**

These higher targets are a challenge to the organization in that they require significant outreach, continuation of current partnerships, a change in resource allocation for attendance measures, and campus and administration collaboration for space identification.

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### How will these Constraint Progress Measures (CPM) challenge the organization to uphold community values? (Meets Focus)

They are aligned and predictive of the constraint that was developed by Trustees to align to the community values they identified before adopting the constraints. Therefore, by being predictive, they in turn also challenge the organization to uphold the community values.

### How are they predictive of Constraint 2? (Meets Focus)

Each of these three areas is predictive in that they are indicators of effective wraparound programs. By focusing on these indicators, we are inherently ensuring we are providing an effective program.

### Are they influenceable by the superintendent? (Meets Focus)

Yes, in that they require work from administration to ensure success.

### What community involvement and communication were conducted to ensure there is broad community ownership of these constraint progress measures by students, staff, and community members? (Masters Focus)

In collaboration with HERC, HISD's Wraparound Services conducted multiple surveys of families and students to identify the needs of the community in this area. These Constraint Progress Measures are aligned with what resources are needed to support our students. Additionally, a data analysis was conducted as we are focused on the negative impacts of chronic absenteeism and truancy, so the additional CPM was added to address mitigating these impacts.

### A concern about the current Constraint Progress Measures (CPM) is they are measuring adult outputs and not effectiveness in terms of student impact. This has the potential to promote a focus on meeting quotas instead of effectively identifying and supporting student needs. The proposed revised CPM 2.1 successfully shifts the focus to student impact; however, CPMs 2.2 and 2.3 are written in a way that is retains focus on adult outputs. Could those be written in a way that is more student-centered?

CPMs 2.2 and 2.3 are written to emphasize the foundational elements of effective wraparound systems. Research suggests that in order to be able to support 2.1, there must be a clear and consistent availability of resources to meet the most immediate need of students. Based on data from our district platform and the Needs Assessment Survey by the Houston Education Research Consortium, basic needs (food insecurity, clothing, hygiene products, etc.) and physical and socioemotional needs remain at the top of identified needs in our district.



Specifically for Constraint Progress Measure (CPM) 2.2, does increasing the number of schools with a basic resource space automatically ensure that all students identified as needing those items receive them "immediately" from the time the need was identified in PURPLE?

Research shows that the essence of wraparound systems is to remove barriers for students and families to increase students' potential for academic readiness. The ability to meet students' basic needs is often considered a crucial action of effective wraparound support in school systems. While this is not an "automatic" process, establishing a space on campus with basic needs items expedites the ability to meet the identified need of our students. This also creates a consistent point of support for both the student and the family, making it a more direct connection to be at the school, especially for students that are missing class because of not having access to some of those resources.

Specifically for 2.3, how will this Constraint Progress Measure (CPM) ensure that the percentage of students identified as needing services are connected with the services they need? Does increasing the number of providers automatically increase connecting students to those services in a timely manner? How was the target number chosen? How does this ensure effectiveness of the services providers to meet the identified needs of students?

As we continue to see the high demand for mental health support and recognizing the barriers (such as partners' capacity, location, and type of services, among others,) we want to ensure we continuously increase the number of partners in this area. Increasing the number of partners does not automatically increase connecting students to those services because the type of services may vary, but it increases the opportunity to have more offerings to serve as many students as possible. Some providers might be funded by grants requiring the student to have insurance, a social security number, or other limiting requirements. The target was chosen based on calculations on the average number of partners that have been able to be processed in a given school year. Existing research suggests that effective wraparound services in a school setting should include a range of services, including mental health services, which requires collaboration with partners and organizations that can offer such services in a coordinated, comprehensive, and accessible manner.

While the constraint specifically states "wraparound services," are support services provided by other departments, such as Student Support Services, included in the data measured by CPM 2.1?

Yes. Through this constraint, the term "wraparound systems" includes the broader umbrella of Student Support Services, including counselors, social workers, and physical and mental health. The Wraparound department is a part of this system, as they are the connectors, but the services and supports encompass a

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broader collaboration, including campus administration support. For the last two years, we have been very focusing on ensuring holistic support is available and designing ways to create an ecosystem that can be sustainable in supporting the needs of our students, and we will continue to add more layers to ensure the continuity of care and support. Having the right tools to get to that goal will be fundamental to the success of executing effective wraparound support systems.

## What percentage of Tier 3 students moved from Tier 3 in fall 2021 to Tier 2 in spring 2022?

Because this is a new metric that we will be monitoring now, the system was not set up to report this specific measure on prior academic years.

## Why are these Constraint Progress Measures (CPMs) ending in June 2024? While CPMs can have a one- to five- year deadline, the constraint is not timebound and therefore these CPMs can end in 2024, although they are not required to do so. There is no requirement that the deadline for constraints is the same as for goals.

The constraints' end date can certainly be extended to a date the Board considers most appropriate to measure the progress of this work. As the work evolves, we will monitor, review, and adjust where needed. Based on conversations during the progress measure development, we want to ensure that the progress measures are still driving adult behavior change in June 2024 when we meet the goals of our next steps.

## For revised 2.1, this seems like an impactful measure that not only will promote better outcomes for students who are chronically absent because they can't learn if they aren't in school but has the additional benefit of increasing ADA. For this Constraint Progress Measure (CPM), why was this target chosen and why does the superintendent believe we only need to monitor this CPM for one year?

School-based Wraparound systems have the potential to increase student attendance by addressing the non-instructional barriers that may prevent students from attending school regularly. By providing a range of services and support to address these barriers, effective wraparound systems can create a more positive and supportive learning environment for students and positive connections with caring adults, which increases students' sense of belonging and engagement in schools, which in turn can lead to better attendance. We also recognize that increasing student attendance is a complex issue, and wraparound systems alone may not be able to solve all the factors that affect attendance. However, when implemented effectively and with adequate resources, wraparound systems can be an effective strategy for addressing some of the non-instructional barriers to attendance and contribute to improving student attendance.

The current goals and constraints progress measures all are set to expire by 2024; this expiration date is

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consistent with the remainder of the board timelines. The superintendent believes that our students, who often face a myriad of socioemotional challenges, require an intentional approach to support some of the most immediate identified needs. Year one data will provide a baseline toward continuous progress monitoring and, if/when needed, necessary adjustments can be made.

**For revised CPM 2.2, as proposed, for how many of the remaining campuses over the two hundred target does the data demonstrate that there is a need for a basic needs resource space?**

Consistent with what best practices and research suggest, having an effective wraparound system in a school setting should include the ability to meet the basic needs as promptly as possible. Considering we have 250 Title I campuses, by targeting two hundred campuses we ensure that at least 80% of these campuses are positioned to meet identified basic needs of our students.

**For revised 2.3, is seventy the maximum number needed?**

Seventy would be the minimum needed, considering the demand for mental health services continues the trends from the last 2.5 years.

| Campus   | Career Cluster                                   | Program of Study                         | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23   | Implementation   |
|----------|--|--|---|--|--|------------------|
| AUSTIN   | Architecture and Construction                    | Carpentry                                | CTE Options on Home Campus  | NCCER Core Level I   | YES  |                  |
|          |  |  | CTE Options on Home Campus  |  |  |                  |
|          |  |  | Construction Technology I (2)   |  |  |                  |
|          |  |  | Construction Technology II (2)*   |  |  |                  |
|          | Business, Marketing, and Finance                 | Business Management                      | Principles of Business, Finance and Marketing (1)   | MOS Word, Google Analytics Individual Qualification  | YES*, NO   |                  |
|          |  |  | Business Information Management I (1)   |  |  |                  |
|          |  |  | Business Information Management II (1)  |  |  |                  |
|          |  |  | Business Management (1)*  |  |  |                  |
|          | Transportation, Distribution and Logistics       | Distribution and Logistics               | Principles of Maritime Science (1)^   | MSSC Certified Logistics Technician (attempted)  | YES  |                  |
|          |  |  | Management of Transportation Systems (1)  |  |  |                  |
|          |  |  | Distribution and Logistics (1) *  |  |  |                  |
|          |  |  | Practicum in Distribution and Logistics (2)*  |  |  |                  |
|          |  | Maritime Science                         | Principles of Maritime Science (1)  | MSSC Certified Logistics Technician (attempted)  | OSHA 30 Hour General*  |                  |
|          |  |  | Maritime Science I (1)^   |  |  |                  |
|          |  |  | Maritime Science II (1)^  |  |  |                  |
|          |  |  | Practicum in Distribution and Logistics (2)*  |  |  |                  |
|          | Information Technology                           | Networking Systems                       | Principles of Information Technology (1)  | MTA Networking Fundamentals  | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTECH, NOCTI Computer Networking Fundamentals - Job Ready | (DSA needed)     |
|          |  |  | Computer Maintenance (1)  |  |  |                  |
|          |  |  | Networking (1)*   |  |  |                  |
|          |  |  | Practicum in Information Technology (2)*  |  |  |                  |
|          |  | Web Development                          | Principles of Information Technology (1)  | NONE   | Oracle Certified Associate Java SE 8 Programmer, NOCTI Web Design - Job Ready  | (DSA needed)     |
|          |  |  | Project Based Research (1)*   |  |  |                  |
| BELLAIRE | Arts, Audio/Visual Technology, and Communication | Graphic Design and Multimedia Arts       | Principles of Arts, A/V Technology and Communications (1)                                   | Adobe Certified Associate Photoshop  | YES  |                  |
|          |  |  | Graphic Design and Illustration I (1) OR Digital Media (1)                                  |  |  |                  |
|          |  |  | Graphic Design and Illus. II (1)* OR Digital Design and Media Prod. (1)                     |  |  |                  |
|          |  |  | Practicum in Entrepreneurship (2)*^   |  |  |                  |
|          | Business, Marketing, and Finance                 | Business Management                      | Principles of Business, Marketing, and Finance (1)  | Microsoft Office Specialist Word, Entrepreneurship and Small Business  | YES*, YES  |                  |
|          |  |  | Business Law (1)  |  |  |                  |
|          |  |  | Global Business (.5)* AND Human Resources Management (.5)*                                  |  |  |                  |
|          |  | Marketing and Sales                      | Statistics and Business Decision Making (1)*  | Entrepreneurship and Small Business  |  |                  |
|          |  |  | Principles of Business, Marketing, and Finance (1) OR Business Information Management I (1) |  |  |                  |
|          |  |  | Marketing (1)^  |  |  |                  |
|          | Transportation, Distribution, and Logistics      | Distribution and Logistics               | Advertising (.5) AND Sports and Entertainment Marketing (.5)                                | Certified Logistics Technician, OSHA 30 General*   |  | (DSA needed CLT) |
|          |  |  | Statistics and Business Decision Making (1)*  |  |  |                  |
|          |  |  | Principles of Distribution and Logistics (1)  |  |  |                  |
|          |  |  | Occupational Safety and Environmental Technology (1)^                                       |  |  |                  |
|          |  |  | Raster Based Geographic Information Systems (1)^  |  |  |                  |
|          |  |  | Distribution and Logistics (1)*   |  |  |                  |
|          | Agriculture, Food, and Natural Resources         | Animal Science                           | Principles of Agriculture, Food, and Natural Resources (1)                                  | Certified Veterinary Assistant Level 1, Elanco Fundamentals of Animal Science, Licensed Veterinary Technician                                |  |                  |
|          |  |  | Small Animal Management (.5) AND Equine Science (.5)  |  |  |                  |
|          |  |  | Livestock Production (1)*   |  |  |                  |
|          |  | Plant Science                            | Advanced Animal Science (1)* OR Veterinary Medical Applications (1)*                        | TSFA Level 1 Floral Certification  |  |                  |
|          |  |  | Principles of Agriculture, Food, and Natural Resources (1)                                  |  |  |                  |
|          |  |  | Floral Design (1)*  |  |  |                  |
|          | STEM   | Programming and Software Development (1) | Advanced Floral Design (1)*   | C++ Certified Associate Programmer, CompTIA Linux+, Oracle Certified Associate Java SE 8 Programmer, Oracle Database SQL Certified Associate | (DSA needed)   |                  |
|          |  |  | Advanced Plant and Soil Science (1)*  |  |  |                  |
|          |  |  | Computer Science I PAP (1)  |  |  |                  |
|          |  | Programming and Software Development (2) | AP Computer Science Principles (1)  |  |  |                  |
|          |  |  | AP Computer Science A (2)*  |  |  |                  |
|          |  |  | AP Computer Science III (1)*  |  |  |                  |
|          | Human Services                                   | Family and Community Services            | Fundamentals of Computer Science (1)  | Apple App Development with Swift, Oracle Certified Associate Java SE 8 Programmer, Oracle Database SQL Certified Associate                   | (DSA needed)   |                  |
|          |  |  | Computer Science I PAP (1)  |  |  |                  |
|          |  |  | Mobile Application Development (1)  |  |  |                  |
|          |  |  | Computer Science II PAP (1)*  |  |  |                  |
|          |  |  | Principles of Human Services (1)  |  |  |                  |
|          |  |  | Professional Communications (.5) AND Interpersonal Studies (.5)                             |  |  |                  |
|          |  |  | Lifetime Nutrition and Wellness (1)   | Child Development Associate  |  |                  |
|          |  |  | Counseling and Mental Health (1)*   |  |  |                  |
|          |  |  |   |  |  |                  |
|          |  |  | Principles of Agriculture, Food and Natural Resources (1)                                   |  |  |                  |

|                    |  |  |   |  |  |               |
|--------------------|--|--|---|--|--|---------------|
| CHAVEZ             | Agriculture, Food and Natural Resources          | Environmental and Natural Resources            | Wildlife, Fisheries, and Ecology Management (1)<br>Forestry and Woodland Ecosystems (1)<br>Range Ecology and Management (1)*  |  | Water Operators - Class D, Natural Resources Systems (NOCTI)   | (Cold Start!) |
|                    | Arts, Audio/Visual Technology, and Communication | Graphic Design and Multimedia Arts             | Principles of Arts, A/V Technology and Communications (1)<br>Graphic Design and Illustration I w/Lab (2)<br>Graphic Design and Illustration II (1)*<br>Practicum in Graphic Design and Illustration (2)*  | Adobe Certified Illustrator, Adobe Certified Photoshop       | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]   |               |
|                    |  |  | Principles of Arts, A/V Technology and Communications (1)<br>A/V Production I (1)<br>A/V Production II (1)*<br>Practicum in A/V Production (2)* OR Digital Audio Technology I (1)*  | Adobe Certified Associate Premiere Pro                       | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop, |               |
|                    |  | Digital Communications                         |   |  |  |               |
|                    | Agriculture, Food and Natural Resources          | Animal Science                                 | Principles of Agriculture, Food and Natural Resources (1)<br>Livestock Production (1)*<br>Veterinary Medical Applications (1)*<br>Advanced Animal Science (1)*  | Certified Veterinary Assistant Level I                       | YES, Elanco Veterinary Technician  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  | Plant Science                                  | Principles of Agriculture, Food and Natural Resources (1)<br>Greenhouse Operations (1)<br>Floral Design (1)*<br>Advanced Plant and Soil Science (1)*<br>Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)<br>Digital Electronics (1)*<br>Engineering Design and Problem Solving (1)* | Texas State Floral Association Floral Skills Knowledge Based | YES [Texas State Floral Association Floral Skills Knowledge Based, TSFA Level 1 Floral Certification]  |               |
|                    | STEM   | Engineering                                    | Principles of Applied Engineering (1)<br>AC/DC Electronics (1)<br>Solid State Electronics (1)*<br>Digital Electronics (1)*  |  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  | Renewable Energy                               | Principles of Applied Engineering (1)<br>AC/DC Electronics (1)<br>Solid State Electronics (1)*<br>Digital Electronics (1)*  |  | NCCER Electronic System Technician Level I, OSHA 30 General*   |               |
|                    | Law and Public Service                           | Emergency Services (1)                         | Principles of Law, Public Safety, Corrections, and Security (1)<br>Disaster Response (1)^<br>Emergency Medical Technician - Basic (2)^*^<br>Project Based Research (1)*   |  | OSHA Harzardous Waste Operations and Emergency Response*   |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  | Emergency Services (2)                         | Principles of Law, Public Safety, Corrections, and Security (1)<br>Disaster Response (1)^<br>Firefighter I (2)*<br>Firefighter II (3)*  |  | OSHA Harzardous Waste Operations and Emergency Response*   |               |
|                    | Health Science                                   | Healthcare Therapeutic                         | Principles of Health Science (1)<br>Medical Microbiology (1)*<br>Medical Terminology (1)<br>Pathophysiology (2)* OR<br>Practicum in Health Science (2)*   | Pharmacy Technician  | YES (Patient Care Technician)  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
| DEBAKEY            | Health Science                                   | Healthcare Diagnostics                         | Principles of Health Science (1)<br>Health Science Theory (1)*<br>Practicum in Health Science (First Time Taken) (2)*<br>Practicum in Health Science (Second Time Taken) (2)*   | Certified Clinical Medical Assistant                         | YES  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  | Healthcare Therapeutic                         | Introduction to Pharmacy Science (1)<br>Health Science Theory (1)*<br>Practicum in Health Science (First Time Taken) (2)*<br>Practicum in Health Science (Second Time Taken) (2)*   | Pharmacy Technician  | YES, Patient Care Technician   |               |
|                    |  |  |   |  |  |               |
| EAST EARLY         | STEM   | Renewable Energy                               | Principles of Applied Engineering (1)<br>AC/DC Electronics (1)<br>Project-Based Research (1)*<br>Scientific Research and Design (1)* OR Solid State Electronics (1)*  |  | NCCER Electronic System Technician Level I   |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
| EASTWOOD           | STEM   | Engineering                                    | Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)*<br>Engineering Design and Problem Solving (1)*<br>Scientific Research and Design (1)*   | OSHA 30 General  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  | Programming and Software Development           | AP Computer Science Principles (1)<br>Game Programming and Design (1)<br>AP Computer Science A (2)* OR Mobile Application Development (1)*<br>Independent Study in Technology Applications (2)*   |  | Certified Entry-Level Python Programmer (PCEP)   | (DSA needed)  |
|                    |  |  |   |  |  |               |
| ENERGIZED FOR STEM | STEM   | Renewable Energy                               | Foundations of Energy (1)<br>Introduction to Renewable Energy (1)<br>Environmental Sustainability (1) (PLTW)*<br>Practicum in Science, Technology, Engineering and Mathematics (2)*   |  | NCCER Electronic System Technician Level I   |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
| ENERGY INSTITUTE   | Manufacturing                                    | Advanced Manufacturing and Machinery Mechanics | Principles of Manufacturing (1)<br>Robotics I (1) OR Manufacturing Engineering Technology I (1)<br>Robotics II (1)* OR Manufacturing Engineering Technology II (1)*<br>Practicum in Manufacturing (2)*  | Certified SOLIDWORKS Associate                               | NO, OSHA 30 General*   |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    |  |  |   |  |  |               |
|                    | STEM   | Engineering                                    | Introduction to Engineering Design (1)<br>Engineering Science (1)*<br>Environmental Sustainability (1) (PLTW)*<br>Engineering Design and Problem Solving (1)* OR Practicum in STEM (2)*   | OSHA 30 General  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++, Certified SOLIDWORKS Associate*             |               |
|                    |  |  |   |  |  |               |

|                                   |  |  |   |  |   |                |
|-----------------------------------|--|--|---|--|---|----------------|
| FURR<br>(Jordan Career Center)    | Agriculture, Food, and Natural Resources         | Environmental and Natural Resources            | Principles of Agriculture, Food and Natural Resources (1)                             | OSHA 30 General  | Water Operators - Class D, Natural Resources Systems  | (Cold Start)   |
|                                   |  |  | Wildlife, Fisheries, and Ecology Management (1)                                       |  |   |                |
|                                   |  |  | Forestry and Woodland Ecosystems (1)  |  |   |                |
|                                   |  |  | Scientific Research and Design (1)*   |  |   |                |
|                                   | Arts, Audio/Video Technology, and Communications | Graphic Design and Multimedia Arts             | Principles of Arts, A/V Tech. and Communications (1)                                  | Adobe Certified Associate Illustrator, Adobe Certified Associate Photoshop, Adobe Certified Associate Premiere Pro | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]  |                |
|                                   |  |  | Digital Design and Media Production (1)   |  |   |                |
|                                   |  |  | Digital Art and Animation (1)*  |  |   |                |
|                                   |  |  | Career Preparation I (2)*   |  |   |                |
|                                   | Health Science                                   | Healthcare Therapeutics                        | Principles of Health Science (1)  | Certified Clinical Medical Assistant   | Certified Clinical Medical Assistant  |                |
|                                   |  |  | Medical Terminology (1)   |  |   |                |
|                                   |  |  | Health Science Theory (1)*  |  |   |                |
|                                   |  |  | Pathophysiology (1)*  |  |   |                |
| HAIS                              | Business, Marketing, and Finance                 | Entrepreneurship                               | Business Information Management I (1)   | MOS Word, MOS Excel  | Entrepreneurship and Small Business   |                |
|                                   |  |  | Mobile Application Development (1)  |  |   |                |
|                                   |  |  | Project Based Research (1)*   |  |   |                |
|                                   |  |  | Practicum in Entrepreneurship (2)*^   |  |   |                |
|                                   | Arts, Audio/Visual Technology and Communications | Graphic Design and Multimedia Arts             | Graphic Design and Illustration I (1)   | Adobe Certified Associate Illustrator, Adobe Certified Associate Photoshop, Adobe Certified Expert Illustrator     | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]  |                |
|                                   |  |  | Video Game Programming (1)*   |  |   |                |
|                                   |  |  | Advanced Video Game Programming (1)*^   |  |   |                |
|                                   |  |  | Career Preparation (2)* OR Practicum in Entrepreneurship (2)*                         |  |   |                |
|                                   | STEM   | Programming and Software Development           | Computer Science I (1)  |  | Certified Entry-Level Python Programmer (PCEP)  | (DSA needed)   |
|                                   |  |  | AP Computer Science Principles (1)  |  |   |                |
|                                   |  |  | Mobile Application Development (1)  |  |   |                |
|                                   |  |  | Career Preparation (2)* OR Practicum in Entrepreneurship (2)*^                        |  |   |                |
|                                   |  | Engineering                                    | Principles of Applied Engineering (1)   |  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++, Certified SOLIDWORKS Associate*            |                |
|                                   |  |  | Engineering Science (1)*  |  |   |                |
|                                   | Law and Public Service                           | Government and Public Administration           | Engineering Design and Problem Solving (1)*   |  | NONE  | ALTERNATE CCMR |
|                                   |  |  | Scientific Research and Design (1)*   |  |   |                |
|                                   |  |  | Principles of Government and Public Administration (1)                                |  |   |                |
|                                   |  |  | Political Science I (1)   |  |   |                |
|                                   |  |  | Political Science II (1)*   |  |   |                |
|                                   |  |  | Planning and Governance (1)* OR Practicum in Local, State and Federal Government (2)* |  |   |                |
| HEIGHTS<br>(Jordan Career Center) | Arts, Audio/Visual Technology and Communications | Graphic Design and Multimedia Arts             | Digital Design and Media Production (1)   | Adobe Certified Associate Photoshop, Adobe Certified Expert Photoshop  | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]  |                |
|                                   |  |  | Digital Media (1)   |  |   |                |
|                                   |  |  | Graphic Design and Illustration I (1)   |  |   |                |
|                                   |  | Digital Communications                         | Graphic Design and Illustration II (1)*   | Adobe Certified Associate Premiere Pro, Adobe Certified Expert Premiere Pro  | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|                                   |  |  | Principles of Arts, A/V Technologies and Communications (1)                           |  |   |                |
|                                   |  |  | Audio/Video Production I (1)  |  |   |                |
|                                   | Business, Marketing, and Finance                 | Accounting and Financial Services              | Audio/Video Production II w/Lab (2) *   | Intuit QuickBooks Certified User   | YES   |                |
|                                   |  |  | Digital Audio Technology I (1)  |  |   |                |
|                                   |  |  | Principles of Business and Marketing Finance (1)                                      |  |   |                |
|                                   |  | Business Management                            | Accounting I (1)  | MOS Word   | YES*, MOS Word Expert   |                |
|                                   |  |  | Accounting 2 (1) *  |  |   |                |
|                                   |  |  | Financial Mathematics (1) *   |  |   |                |
|                                   | Transportation, Distribution, and Logistics      | Automotive                                     | Principles of Business and Marketing Finance (1)                                      | ASE Brakes Entry Level, ASE Refrigerant Recovery and Recycling   | YES   |                |
|                                   |  |  | Business Information Management I (1)   |  |   |                |
|                                   |  |  | Business Information Management II (1)  |  |   |                |
|                                   |  |  | Business Management (1)*  |  |   |                |
|                                   |  |  | Energy and Power of Transportation Systems (1) *                                      |  |   |                |
|                                   |  |  | Automotive Basics (1)   |  |   |                |
|                                   | Information Technology                           | Web Development                                | Automotive Technology I (2) *   | ASE Brakes Entry Level, ASE Refrigerant Recovery and Recycling   | YES   |                |
|                                   |  |  | Automotive Technology II (2)* OR Practicum in Transportation Systems (2)*             |  |   |                |
|                                   |  |  | Web Game Development (1) *  |  |   |                |
|                                   |  |  | Web Design (1) *  |  |   |                |
|                                   |  |  | Independent Study in Technology Applications (1) *                                    |  |   |                |
|                                   |  |  | Project Based Research (1) *  |  |   |                |
|                                   | Manufacturing                                    | Advanced Manufacturing and Machinery Mechanics | Principles of Applied Engineering (1)   | OSHA 30 General  | YES*  |                |
|                                   |  |  | Engineering Design and Presentation I (1) *   |  |   |                |
|                                   |  |  | Robotics I (1)  |  |   |                |
|                                   |  |  | Robotics II (1) *   |  |   |                |
|                                   | Health Science                                   | Healthcare Diagnostics                         | Principles of Health Science (1)  | Certified EKG Technician, Patient Care Technician  | YES   |                |
|                                   |  |  | Health Science Theory (1) *   |  |   |                |
|                                   |  |  | Anatomy and Physiology (1) *  |  |   |                |
|                                   |  |  | Practicum in Health Science (2) *   |  |   |                |
|                                   | STEM   | Cybersecurity                                  | Foundations of Cybersecurity (1)  |  | Comp TIA A+/Network+/Security+, NOCTI Cybersecurity Fundamentals  | (DSA needed)   |
|                                   |  |  | Internetworking Technologies (1)^   |  |   |                |
|                                   |  |  | TBD   |  |   |                |
|                                   |  |  | TBD   |  |   |                |
|                                   | Government and Public Administration             |  | Principles of Government and Public Administration (1)                                | MOS Word   | NONE  | ALTERNATE CCMR |
|                                   |  |  | Political Science I (1)   |  |   |                |
|                                   |  |  | Political Science II (1)*   |  |   |                |
|                                   |  |  | Revenue, Tax, and Regulation (1) *  |  |   |                |

|  |  |  |   |   |  |                |
|--|--|--|---|---|--|----------------|
| HSLJ                                   | Law and Public Service                           | Emergency Services                     | Principles of Law, Public Safety, Corrections and Security (1)                            | IAED Emergency Telecommunicator   | YES  |                |
|  |  |  | Law Enforcement I (1)   |   |  |                |
|  |  |  | National Security (1)*  |   |  |                |
|  |  |  | Practicum in Law, Public Safety, Corrections, and Security (2)*                           |   |  |                |
|  |  | Law Enforcement                        | Principles of Law, Public Safety, Corrections and Security (1)                            | Non-Commissioned Security Officer Level II  | YES  |                |
|  |  |  | Law Enforcement I (1)   |   |  |                |
|  |  |  | Law Enforcement II (1)*   |   |  |                |
|  |  |  | Forensic Science (1)  |   |  |                |
|  |  | Legal Studies                          | Principles of Law, Public Safety, Corrections and Security (1)                            | MOS Excel   | NONE   | ALTERNATE CCMR |
|  |  |  | Political Science I (1) OR Business Law (1)   |   |  |                |
|  |  |  | Political Science II (1) * OR Political Science I (1)                                     |   |  |                |
|  |  |  | Court Systems and Practices (1)   |   |  |                |
| HSPVA                                  | Arts, Audio/Visual Technology and Communications | Digital Communications                 | Principles of Arts A/V Technology and Communication (1)                                   |   | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|  |  |  | Digital Communications in the 21st Century (1)  |   |  |                |
|  |  |  | Audio/Video Production I (1)  |   |  |                |
|  |  |  | Audio/Video Production II (1)*  |   |  |                |
| HOUSTON MSTC<br>(Jordan Career Center) | Architecture and Construction                    | Plumbing and Pipefitting               | Principles of Construction (1)  | NCCER Core Level I  | NO, NCCER Pipefitting Level I/Plumbing Level I, OSHA 30 Hour General OR Construction*  |                |
|  |  |  | Plumbing Technology I (1)   |   |  |                |
|  |  |  | Plumbing Technology II (2)*   |   |  |                |
|  |  |  | Practicum in Construction Technology (2)*   |   |  |                |
|  | Business, Marketing, and Finance                 | Business Management                    | Business Information Management I (1)   | MOS Word, MOS Excel   | YES* [MOS Word Expert, MOS Excel Expert]   |                |
|  |  |  | Business Information Management II w/Lab (2)  |   |  |                |
|  |  |  | Business Management *(1) AND Human Resources Management (0.5)* AND Global Business* (0.5) |   |  |                |
|  |  |  | Practicum in Business Management (2)*   |   |  |                |
|  | Arts, A/V, Technology and Communications         | Graphic Design and Multimedia Arts     | Principles of Arts, A/V Technology, and Communications (1)                                | Adobe Certified Associate Photoshop   | YES [Adobe Certified Professional in Visual Design Using Photoshop]  |                |
|  |  |  | Graphic Design and Illustration I (1)   |   |  |                |
|  |  |  | Graphic Design and Illustration II w/Lab (2)*   |   |  |                |
|  |  |  | Practicum in Entrepreneurship (2)*^   |   |  |                |
|  | Digital Communications                           |  | Principles of Arts, A/V Technology, and Communications (1)                                |   | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|  |  |  | Audio/Video Production I (1)  |   |  |                |
|  |  |  | Audio/Video Production II w/Lab (2)*  |   |  |                |
|  |  |  | Practicum in Entrepreneurship (2)*^   |   |  |                |
|  | Transportation, Distribution and Logistics       | Automotive                             | Principles of Transportation Systems (1)  | ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling  | YES  |                |
|  |  |  | Automotive Basics (1)   |   |  |                |
|  |  |  | Automotive Technology I (2)*  |   |  |                |
|  |  |  | Automotive Technology II (2)* OR Practicum in Transport. Systems (2)*                     |   |  |                |
|  | Information Technology                           | Networking Systems                     | Principles of Information Technology (1)  | MTA Windows Operating System Fundamentals   | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTech   | (DSA needed)   |
|  |  |  | Computer Maintenance w/ Lab (2)   |   |  |                |
|  |  |  | Networking w/ Lab (2)*  |   |  |                |
|  |  |  | Computer Technician Practicum (2)*  |   |  |                |
|  | Regional Programs                                | Drone (Unarmed Flight)                 | Robotics I (1)  |   | FAA Part 107 Remote Drone Pilot  |                |
|  |  |  | Robotics II (2)*  |   |  |                |
|  |  |  | Introduction to Unmanned Aerial Vehicles (1)^   |   |  |                |
|  |  |  | Practicum in Manufacturing (2)*   |   |  |                |
|  | STEM   | Programming and Software Development   | Fundamentals of Computer Science (1)  |   | Certified Entry-Level Python Programmer (PCEP)   | (DSA needed)   |
|  |  |  | Computer Science I (1)  |   |  |                |
|  |  |  | Computer Science II (1)*  |   |  |                |
|  |  |  | Computer Science III (1)*   |   |  |                |
|  | Health Science                                   | Healthcare Diagnostics                 | Principles of Health Science (1)  | Certified Clinical Medical Assistant  | YES  |                |
|  |  |  | Medical Terminology (1)   |   |  |                |
|  |  |  | Health Science Theory* (1) AND Anatomy and Physiology* (1)                                |   |  |                |
|  |  |  | Practicum in Health Science (2)*  |   |  |                |
|  | Human Services                                   | Cosmetology                            | Introduction to Cosmetology (1)   | Cosmetology Operator License  | YES  |                |
|  |  |  | Cosmetology I (2)*  |   |  |                |
|  |  |  | Nail Care, Enhancements and Spa Services (2)^   |   |  |                |
|  |  |  | Cosmetology II (2)*   |   |  |                |
| JONES                                  | Architecture and Construction                    | Architectural Design                   | Principles of Architecture (1)  | Autodesk Certified Professional or User AutoCAD                                       | YES, Autodesk Associate (Certified User) AutoCAD, Autodesk Certified Professional in AutoCAD for Design and Drafting                   |                |
|  |  |  | Architectural Design I (1)  |   |  |                |
|  |  |  | Architectural Design II (2)*  |   |  |                |
|  |  |  | Practicum in Architectural Design (2)*  |   |  |                |
|  | HVAC and Sheet Metal (PTECH 22/23)               |  | Principles of Construction (1)  | OSHA 30 Hour General  | YES* [OSHA 30 Hour General/Construction*, NCCER Core Level I/HVAC Level I, Refrigerant Handling EPA 608]                               |                |
|  |  |  | Heating, Ventilation, and Air Conditioning and Refr. Tech I (1)                           |   |  |                |
|  |  |  | Heating, Ventilation, and Air Conditioning and Refr. Tech II (2)                          |   |  |                |
|  |  |  | Practicum in Construction Technology (2)*   |   |  |                |
|  | Health Science                                   | Healthcare Diagnostics                 | Principles of Health Science (1)  | Phlebotomy Technician, Certified EKG Technician, Certified Clinical Medical Assistant | YES  |                |
|  |  |  | Health Science Theory (1)*  |   |  |                |
|  |  |  | Anatomy and Physiology (1)*   |   |  |                |
|  |  |  | Practicum in Health Science (2)* OR Medical Microbiology (1)*                             |   |  |                |
|  | Architecture and Construction                    | Construction Management and Inspection | CTE Options on Home Campus  | NCCER Core Level I  | YES  |                |
|  |  |  | CTE Options on Home Campus  |   |  |                |
|  |  |  | Construction Management I (2)   |   |  |                |
|  |  |  | Construction Management II (2)*   |   |  |                |



|                              |  |  |  |  |   |  |
|------------------------------|--|--|--|--|---|--|
| Barbara Jordan Career Center | Business, Marketing, and Finance                 | Marketing and Sales                          | CTE Options on Home Campus   | Entrepreneurship and Small Business  | YES   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | Retail Management (1)* AND Entrepreneurship (1)  |  |   |  |
|                              | Hospitality and Tourism                          | Culinary Arts                                | Advanced Marketing (2)*  | ServSafe Manager   | YES   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Transportation, Distribution and Logistics       | Automotive                                   | Advanced Culinary Arts (2)*  | ASE Refrigerant Recovery and Recycling, ASE Maintenance and Light Repair Entry Level (plus level 1 workforce certificates via college) | YES   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Architecture and Construction                    | Architectural Design                         | Automotive Technology I DCH (2)*   | Autodesk Associate (Certified User) AutoCAD  |   |  |
|                              |  |  | Automotive Technology II DCH (2)*  |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  | Electrical                                   | CTE Options on Home Campus   | NCCER Core Level I, NCCER Electrical Level I, OSHA 30 Hour General*  |   |  |
|                              |  |  | Principles of Architectural Design (1) AND Architectural Design I (1)                          |  |   |  |
|                              |  |  | Architectural Design II (2)*   |  |   |  |
| KASHMERE                     | Energy   | Refining & Chemical Processes                | CTE Options on Home Campus   | NCCER Instrumentation Level I  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | Principles of Applied Engineering (1) AND Applied Mathematics for Technical Professionals (1)* |  |   |  |
|                              | Manufacturing                                    | Welding                                      | Introduction to Process Technology (1) AND Petrochemical Safety, Health, and Environment (1)*  | NCCER Welding Level I  | YES [NCCER Core Level I, NCCER Welding Level I AWS Sense]   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Education and Training                           | Teaching and Training                        | Welding I (2) DCH  | Educational Aide I   | YES   |  |
|                              |  |  | Welding II (2)* DCH  |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Human Services                                   | Cosmetology                                  | CTE Options on Home Campus   | Cosmetology Operator's License   | YES   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | Cosmetology I (2)* AND Nail Care, Enhancements and Spa Services (1)^                           |  |   |  |
|                              | Law and Public Service                           | Government and Public Administration         | Cosmetology II (2)* AND Principles of Cosmetology Design and Color Theory (1)                  | NONE   |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Health Science                                   | Healthcare Diagnostics                       | Political Science I (1) AND Planning and Governance (1)*                                       | Certified Clinical Medical Assistant   | YES   |  |
|                              |  |  | Political Science II (1)* AND Public Management and Administration (1)*                        |  |   |  |
|                              |  |  | CTE Options on Home Campus   |  |   |  |
|                              | Arts, Audio/Visual Technology and Communications | Graphic Design and Multimedia Arts           | Principles of Arts, A/V Technology and Communications (1)                                      | Adobe Certified Professional in Visual Design Using Photoshop  |   |  |
|                              |  |  | Graphic Design and Illustration I (1)  |  |   |  |
|                              |  |  | Animation I (1)  |  |   |  |
|                              |  | Graphic Design and Multimedia Arts (Futures) | Animation II (1)*  | Adobe Certified Professional in Visual Design Using Photoshop  |   |  |
|                              |  |  | Principles of Arts, A/V Technology and Communications (1)                                      |  |   |  |
|                              |  |  | Graphic Design and Illustration DCH (1)  |  |   |  |
|                              | Business, Marketing, and Finance                 | Entrepreneurship                             | Animation I DCH (1)  | MOS Word   | Entrepreneurship and Small Business   |  |
|                              |  |  | Practicum in Graphic Design and Illustration DCH (2)*  |  |   |  |
|                              |  |  | Business Information Management I (1)  |  |   |  |
|                              |  |  | Entrepreneurship I (1)   |  |   |  |
|                              | Arts, Audio/Visual Technology, and Communication | Graphic Design and Multimedia Arts           | Entrepreneurship II (1)^   | Adobe Certified Associate Photoshop  | YES [Adobe Certified Professional in Visual Design Using Photoshop]   |  |
|                              |  |  | Practicum In Entrepreneurship (2)*^  |  |   |  |
|                              |  |  | Principles of Arts, A/V Technology, and Communications (1)                                     |  |   |  |
|                              |  | Digital Communications                       | Graphic Design and Illustration I (1)  | Adobe Certified Associate Premiere Pro   | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |  |
|                              |  |  | Graphic Design and Illustration II (1)*  |  |   |  |
|                              |  |  | Commercial Photography I (1)   |  |   |  |
|                              | Business, Marketing, and Finance                 | Accounting and Financial Services            | Principles of Arts, A/V Technology, and Communications (1)                                     | MOS Excel Expert, Quickbooks Certified User  | YES   |  |
|                              |  |  | Audio/Video Production I (1)   |  |   |  |
|                              |  |  | Audio/Video Production II (1)*   |  |   |  |
|                              |  |  | Digital Audio Technology I (1)   |  |   |  |
|                              |  |  | Principles of Business, Marketing and Finance (1)  | Entrepreneurship and Small Business. MOS Word. MOS Exoert  |   |  |
|                              |  |  | Money Matters (1)  |  |   |  |
|                              |  |  | Accounting I (1)   |  |   |  |
|                              |  |  | Accounting II (2)*   |  |   |  |
|                              |  |  | Principles of Business, Marketing and Finance (1)  |  |   |  |
|                              |  |  | Business Information Management I (1)  |  |   |  |
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|--------------|--|--|--|--|---|--------------|
| LAMAR        |  | Business Management                            | Business Management (1)*<br>Practicum of Business Management (2)* OR<br>Global Business (0.5) * AND Human Resources Management (0.5)*  | Word   | YES [MOS Word Expert]   |              |
|              | Hospitality and Tourism                          | Culinary Arts                                  | Principles of Hospitality and Tourism (1)<br>Introduction to Culinary Arts (1)<br>Culinary Arts (2)<br>Food Science (1) * OR Practicum in Culinary Arts (2)*   |  | ServSafe Manager  |              |
|              |  |  | Principles of Hospitality and Tourism (1)<br>Hotel Management (1)<br>Travel and Tourism (1)<br>Hospitality Services (2)* OR Practicum in Hospitality Services (2)*   |  | Certified Hospitality and Tourism Professional  |              |
|              |  | Lodging and Resort Management                  | Principles of Agriculture, Food and Natural Resources (1)<br>Livestock Production (1)*<br>Veterinary Medical Applications (1)* OR<br>Equine Science (0.5) AND Small Animal Management (0.5)                    | Certified Veterinary Assistant Level 1                       | YES   |              |
|              | Agriculture, Food and Natural Resources          | Animal Science                                 | Advanced Animal Science (1)* OR Practicum in Agriculture, Food, and Natural Resources (2)*   |  |   |              |
|              |  |  | Principles of Agriculture, Food and Natural Resources (1)<br>Floral Design (1)*<br>Landscape Design and Management (0.5) AND<br>Turf Grass Management (0.5)  | Texas State Floral Association Floral Skills Knowledge Based | YES [TSFA Level 1 Floral Certification]   |              |
|              |  | Plant Science                                  | Horticultural Science (1) OR Practicum in Agriculture, Food, and Natural Resources (2)*  |  |   |              |
|              | STEM   | Engineering                                    | Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)*<br>Engineering Science (1)*<br>Engineering Design and Presentation II (2)* OR Practicum in STEM (2)*                       | Autodesk Certified Professional or User AutoCAD              | YES   |              |
|              |  |  | AP Computer Science Principles (1)<br>Computer Science I PREIB (1)<br>IB Computer Science Standard Level, Year 1 (1)*<br>IB Computer Science Standard Level, Year 2 (1)*                                       |  | Certified Entry-Level Python Programmer (PCEP)  | (DSA needed) |
|              |  | Programming and Software Development           | Principles of Exercise Science and Wellness (1)^<br>Kinesiology I (1)^<br>Kinesiology II (1)^<br>Practicum in Entrepreneurship (2)*^   |  | Certified Personal Trainer, Pre-Professional Certification in Nutrition, Food, Wellness                       | (Cold Start) |
|              | Health Science                                   | Exercise Science and Wellness                  | Principles of Human Services (1)<br>Human Growth and Development (1)<br>Child Development (1)<br>Family and Community Services (1)* OR Practicum in Human Services (2)*  | OSHA 30 General  | Child Development Associate   |              |
|              | Human Services                                   | Family and Community Services                  |  |  |   |              |
|              |  |  |  |  |   |              |
|              |  |  |  |  |   |              |
| LIBERTY      | Arts, Audio/Video Technology, and Communications | Graphic Design and Multimedia Arts             | Principles of Arts, A/V Technology, and Communications (1)<br>Graphic Design and Illustration I (1)<br>Graphic Design and Illustration II (1)*   |  | Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator                       |              |
| LONG ACADEMY | STEM   | Biomedical Science                             | Principles of Biosciences (1)<br>Biotechnology I (1)<br>Pathophysiology (1)*<br>NONE   |  | Medical Laboratory Assistant, Medical Laboratory Technician   | (Cold Start) |
|              |  |  |  |  |   |              |
|              |  |  |  |  |   |              |
| MADISON      | Information Technology                           | Networking Systems                             | Principles of Information Technology (1)<br>Internetworking Technologies I (1)^<br>Internetworking Technologies II (1) *^<br>Career Preparation I (2)*   |  | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTech                                      | (DSA needed) |
|              | Transportation, Distribution and Logistics       | Automotive                                     | Principles of Transportation Systems (1)<br>Energy and Power of Transportation Systems (1)*<br>Automotive Technology I: Maintenance and Light Repair (2)*<br>Automotive Technology II: Automotive Service (2)* |  | ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling                          |              |
|              | Agriculture, Food and Natural Resources          | Animal Science                                 | Principles of Agriculture, Food and Natural Resources (1)<br>Livestock Production (1)*<br>Veterinary Medical Applications (1)*<br>Advanced Animal Science (1)*   |  | Certified Veterinary Assistant Level 1, Elanco Fundamentals of Animal Science, Licensed Veterinary Technician |              |
|              | Manufacturing                                    | Advanced Manufacturing and Machinery Mechanics | Principles of Applied Engineering (1)<br>Robotics I (1)<br>Engineering Design and Presentation I (1)*<br>Robotics II (1)*  |  | OSHA 30 General*  |              |
|              |  |  | Introduction to Welding (1)<br>Welding I (2)<br>Welding II (2)*<br>Practicum in Manufacturing (2)*   |  | NCCER Core Level I, NCCER Welding Level I   |              |
|              |  | Welding  | Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)*<br>Engineering Design and Presentation II (2)*<br>Engineering Design and Problem Solving (1)*                              |  | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate*           |              |
|              | STEM   | Engineering                                    |  |  |   |              |
|              | Health Science                                   | Healthcare Diagnostics                         | Principles of Health Science (1)<br>Health Science Theory (1)*<br>Anatomy and Physiology (1)*<br>Practicum in Health Science (2)*<br>Introduction to Cosmetology (1)   |  | Certified Clinical Medical Assistant  |              |
|              |  |  |  |  |   |              |
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|-------------------------------------|--|--------------------------------------|---|---|---|----------------|
|                                     | Human Services                                   | Cosmetology                          | Principles of Cosmetology Design and Color (1)<br>Cosmetology I (2)*<br>Cosmetology II (2)*   |   | Cosmetology Operator License  |                |
|                                     |  |                                      |   |   |   |                |
| MICKEY LELAND CPA                   | Arts, Audio/Visual Technology and Communications | Graphic Design and Multimedia Arts   | Digital Media (1)<br>Digital Design and Media Production (1)<br>Career Preparation I (2)*<br>NONE   | Adobe Certified Associate Photoshop               | Adobe Certified Professional in Graphic Design Using Photoshop  |                |
|                                     |  |                                      | Fundamentals of Computer Science (1)<br>AP Computer Science Principles (1)<br>AP Computer Science A (1)*<br>Career Preparation I (2) *  |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     | STEM   | Programming and Software Development |   |   | Certified Entry-Level Python Programmer (PCEP)  | (DSA needed)   |
|                                     |  |                                      |   |   |   |                |
| MIDDLE COLLEGE HS at<br>HCC GULFTON | STEM   | Programming and Software Development | Fundamentals of Computer Science (1)<br>Computer Science I (1)<br>Computer Science II (1)*<br>Mobile Application Development (1)*   | MOS Word  | NO, Certified Entry-Level Python Programmer (PCEP)  | (DSA needed)   |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
| MIDDLE COLLEGE HS at<br>HCC FRAGA   | Business, Marketing, and Finance                 | Marketing and Sales                  | Principles of Business, Marketing, and Finance (1)<br>Virtual Business (0.5) AND Advertising (0.5)*<br>Retail Management (1)*^ AND Marketing (1)<br>Career Preparation I (2)*   | MOS Word, MOS Word Expert                         | NO, NO, Entrepreneurship and Small Business   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
| MILBY                               | Architecture and Construction                    | Carpentry                            | CTE Options on Home Campus<br>CTE Options on Home Campus<br>Construction Technology I (2)<br>Construction Technology II (2)*  | NCCER Core Level I, OSHA 30 Construction*         | YES, NO* (NCCER Carpentry Level I)  |                |
|                                     |  |                                      | Principles of Construction (1)<br>HVAC and Refrigeration Technology I (1)<br>HVAC and Refrigeration I Technology II (2)*  |   |   |                |
|                                     |  |                                      | Introduction to Culinary Arts (1)<br>Foundations of Restaurant Management (1)<br>Culinary Arts (2)<br>Advanced Culinary Arts (2)*<br>Introduction to Welding (1)<br>Welding I (2)<br>Welding II (2)*<br>NONE  |   |   |                |
|                                     |  |                                      | Fundamentals of Computer Science (1)<br>AP Computer Science Principles (1)<br>Computer Science I (1)<br>Cybersecurity Capstone (2)*^  |   |   |                |
|                                     | Hospitality and Tourism                          | Culinary Arts                        | Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)*<br>Engineering Design and Presentation II (2)*<br>Engineering Design and Problem Solving (1)*   | ServSafe Manager                                  | ServSafe Manager  |                |
|                                     |  |                                      |   |   |   |                |
|                                     | Manufacturing                                    | Welding                              | Principles of Health Science (1)<br>Medical Terminology (1)<br>Health Science Theory with Clinical (2)*<br>Practicum in Health Science (2)*<br>Introduction to Cosmetology (1)<br>Principles of Cosmetology Design and Color Theory (1)<br>Cosmetology I (2) * OR Nail Care, Enhancements, and Spa Svcs (1)^<br>Cosmetology II (2)* | AWE Sense Welding Level I                         | AWE Sense Welding Level I   |                |
|                                     |  |                                      |   |   |   |                |
|                                     | STEM   | Cybersecurity                        |   | MTA Introduction to Programming Using Python      | NOCTI Security Fundamentals, Comp TIA A+/Network+/Security+   | (DSA needed)   |
|                                     |  |                                      |   |   |   |                |
|                                     |  | Engineering                          |   | OSHA 30 General                                   | Autodesk Associate (Certified User) Inventor for Mechanical Design, <u>Certified SOLIDWORKS Associate*</u> , NOCTI Engineering Technology Foundations |                |
|                                     |  |                                      |   |   |   |                |
|                                     | Health Science                                   | Healthcare Diagnostics               |   | Clinical Medical Assistant                        | YES, Pharmacy Technician  |                |
|                                     | Human Services                                   | Cosmetology                          |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
| MOUNT CARMEL<br>ACADEMY             | Health Science                                   | Health Informatics                   | Medical Terminology (1)<br>Business Information Management I (1)<br>Health Informatics (1)*<br>NONE   |   | Medical Billing and Coding Specialist   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
| NORTH HOUSTON ECHS                  | Business, Marketing, and Finance                 | Entrepreneurship                     | Principles of Business, Marketing and Finance (1)<br>Entrepreneurship (1)<br>Entrepreneurship II (1)*<br>Project Based Research (1)* OR Practicum in Entrepreneurship (2)*  | Entrepreneurship and Small Business, MOS Word     | YES, NO   |                |
|                                     |  |                                      | Principles of Government and Public Administration (1)<br>Political Science I (1)<br>Dimensions of Diplomacy (1)*^<br>TBD   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     | Law and Public Service                           | Government and Public Administration |   |   | NONE  | ALTERNATE CCMR |
|                                     |  |                                      |   |   |   |                |
|                                     | Architecture and Construction                    | HVAC and Sheet Metal (DCH)           | Principles of Construction (1)<br>HVAC and Refrigeration Technology I (1)<br>HVAC and Refrigeration Technology II (2)*<br>Practicum in Construction Technology (2)*   | Refrigerant Handling EPA 608 [25 current seniors] | YES (NCCER Core Level 1)  |                |
|                                     |  |                                      | Principles of Information Technology (1)<br>Internetworking Technologies I (1)<br>Internetworking Technologies II (1)*<br>Career Preparation I (2)*   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     |  |                                      |   |   |   |                |
|                                     | Information Technology                           | Networking Systems                   |   | MOS Word/Excel                                    | NO (Cisco 100-490/200-301, CompTIA Network+)  | (DSA needed)   |
|                                     |  |                                      |   |   |   |                |

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|--------------------------|---|--|---|--|---|--------------|
| NORTH FOREST             | Transportation, Distribution and Logistics      | Automotive                                     | Principles of Transportations Systems (1)   | ASE Maintenance Light and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling   | YES   |              |
|                          |   |  | Energy, Power and Transportation Systems (1)  |  |   |              |
|                          |   |  | Automotive Basics (1)   |  |   |              |
|                          |   |  | Career Preparation I (2)*   |  |   |              |
|                          | Agriculture, Food and Natural Resources         | Animal Science                                 | Principles of Agriculture, Food and Natural Resources (1)                           | OSHA 30 General, Certified Veterinary Assistant  | (NO) YES [Elanco Animal Science Cert]   |              |
|                          |   |  | Livestock Production (1)*   |  |   |              |
|                          |   |  | Veterinary Medical Applications (1)*  |  |   |              |
|                          |   |  | Practicum in Agriculture, Food and Natural Resources (2)*                           |  |   |              |
|                          | Law and Public Service                          | Emergency Services                             | Principles of Law, Public Safety, Corrections and Security (1)                      | OSHA 30 General  | NO (OSHA Hazardous Waste Operations and Emergency Response*, IAED Emergency Telecommunicator) |              |
|                          |   |  | Disaster Response (1)^  |  |   |              |
|                          |   |  | Firefighter I (2)*  |  |   |              |
|                          |   |  | Anatomy and Physiology (1)*   |  |   |              |
| NORTHSIDE                | Arts, Audio/Visual Technology and Communication | Digital Communications                         | Principles of Arts, A/V Technology And Communications (1)                           | Adobe Certified Associate Photoshop  | YES   |              |
|                          |   |  | Audio/ Video Production I (1)   |  |   |              |
|                          |   |  | Audio/ Video Production II (1)*   |  |   |              |
|                          |   |  | Practicum in Audio/ Video Production (2)*   |  |   |              |
|                          |   | Graphic Design and Multimedia Arts             | Principles of Arts, A/V Technology And Communications (1)                           |  |   |              |
|                          |   |  | Digital Media (1) OR Graphic Design and Illustration I (1)                          |  |   |              |
|                          |   |  | Graphic Design and Illust. I DCH (2) OR Digital Design and Media Production (1)*    |  |   |              |
|                          |   |  | Graphic Design and Illust. II DCH (2)* OR Practicum in Audio/ Video Production (2)* |  |   |              |
|                          | Hospitality and Tourism                         | Culinary Arts                                  | Principles of Hospitality and Tourism (1)   | Certified Hospitality and Tourism Management Professional  | YES   |              |
|                          |   |  | Introduction to Culinary Arts (1)   |  |   |              |
|                          |   |  | Culinary Arts (2)   |  |   |              |
|                          |   |  | Practicum in Culinary Arts (2)*   |  |   |              |
|                          |   | Lodging and Resort Management                  | Principles of Hospitality and Tourism (1)   |  |   |              |
|                          |   |  | Hotel Management (1)  |  |   |              |
|                          |   |  | Hospitality Services (2)*   |  |   |              |
|                          |   |  | Practicum in Hospitality Services (2)*  |  |   |              |
|                          | STEM  | Cybersecurity                                  | Principles of Information Technology (1)  | Comp TIA A+/Network+/Security+   |   | (DSA needed) |
|                          |   |  | Internetworking Technologies (1)^   |  |   |              |
|                          |   |  | Networking (1)*   |  |   |              |
|                          |   |  | Practicum in Information Technology (2)*  |  |   |              |
| SCARBOROUGH              | Architecture and Construction                   | HVAC and Sheet Metal                           | Principles of Construction (1)  | Refrigerant Handling EPA 608, OSHA 30 Construction   | YES, NO, NCCER Core Level I, NCCER HVAC Level I   |              |
|                          |   |  | HVAC and Refrigeration Technology I (1)   |  |   |              |
|                          |   |  | HVAC and Refrigeration Technology II (2)*   |  |   |              |
|                          |   |  | Practicum in Construction Technology (2)*   |  |   |              |
|                          | Business, Marketing, and Finance                | Business Management                            | Principles of Business, Marketing and Finance (1)                                   | MOS Word Expert, MOS Excel Expert, Entrepreneurship and Small Business   |   |              |
|                          |   |  | Business Information Management I (1)   |  |   |              |
|                          |   |  | Business Management (1)*  |  |   |              |
|                          |   |  | Practicum in Business Management (2)*   |  |   |              |
|                          | Education and Training                          | Teaching and Training                          | Principles of Education and Training (1)  | Educational Aide I   | YES   |              |
|                          |   |  | Human Growth and Development (1)  |  |   |              |
|                          |   |  | Instructional Practices (2)*  |  |   |              |
|                          |   |  | Practicum in Education and Training (2)*  |  |   |              |
| SHARPSTOWN               | Agriculture, Food, and Natural Resources        | Plant Science                                  | Principles of Agriculture, Food, and Natural Resources (1)                          | TSFA Level 1 Floral Certification  |   |              |
|                          |   |  | Horticultural Science (1)*  |  |   |              |
|                          |   |  | Floral Design I (1)*  |  |   |              |
|                          |   |  | Advanced Floral Design (1)** OR Advanced Plant and Soil Science (1)*                |  |   |              |
|                          | Arts, A/V Technology, and Communication         | Graphic Design and Multimedia Arts             | Digital Media (1) OR Video Game Design (1)  | Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator  |   |              |
|                          |   |  | Animation I (1)   |  |   |              |
|                          |   |  | Animation II (1)*   |  |   |              |
|                          |   | Digital Communications                         | Practicum in Audio/Video Production (2)*  |  |   |              |
|                          |   |  | Principles of Arts, A/V Technology and Communications (1)                           |  |   |              |
|                          |   |  | Audio/Video Production I (1)  |  |   |              |
|                          | Health Science                                  | Healthcare Diagnostics                         | Audio/Video Production II (1)*  | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro, Adobe Certified Professional in Visual Design Using Photoshop, | YES, NO   |              |
|                          |   |  | Practicum in Audio/Video Production (2)* OR Practicum in Entrepreneurship (2)*^     |  |   |              |
|                          |   |  | Principles of Health Science (1)  |  |   |              |
|                          |   |  | Medical Terminology (1)   |  |   |              |
| SHARPSTOWN INTERNATIONAL | Arts, AV Technology and Communications          | Graphic Design and Multimedia Arts             | Health Science Theory (1)*  | Clinical Medical Assistant, Medical Billing and Coding   |   |              |
|                          |   |  | Anatomy and Physiology (1)*   |  |   |              |
|                          |   |  | Principles of Arts, AV Technology and Communications (1)                            |  |   |              |
|                          |   |  | Graphic Design and Illustration I (1)   |  |   |              |
|                          | Business, Marketing, and Finance                | Entrepreneurship                               | Graphic Design and Illustration II (1)*   | Adobe Certified Associate Illustrator  | YES [Adobe Certified Professional in Graphic Design Using Photoshop]                          |              |
|                          |   |  | Digital Art and Animation (1)*  |  |   |              |
|                          |   |  | Business Information Management I (1)   |  |   |              |
|                          |   |  | Entrepreneurship I (1)  |  |   |              |
|                          | Manufacturing                                   | Advanced Manufacturing and Machinery Mechanics | Entrepreneurship II (1)*  | Entrepreneurship and Small Business  |   |              |
|                          |   |  | Project-Based Research (1)*   |  |   |              |
|                          |   |  | Principles of Applied Engineering (1)   |  |   |              |
|                          |   |  | Manufacturing Engineering Technology I (1)  |  |   |              |
|                          |   |  | Engineering Design and Presentation I (1)*  | OSHA 30 General*   |   |              |
|                          |   |  | Career Preparation I (2)*   |  |   |              |

|                           |  |   |  |  |   |                  |
|---------------------------|--|---|--|--|---|------------------|
|                           | STEM                                       | Programming and Software Development        | Computer Science I (1)<br>AP Computer Science Principles (1)<br>IB Computer Science SL1 (1)*<br>IB Computer Science HL1 (1)*   |  | Certified Entry-Level Python Programmer (PCEP)  | (DSA needed)     |
| SOUTH EARLY COLLEGE<br>HS | Business, Marketing, and Finance           | Business Management                         | Business Information Management I (1)<br>Business Information Management II (1)<br>Business Management (1)*<br>Statistics and Business Decision Making (1)*  |  | MOS Word Expert, MOS Excel Expert, Entrepreneurship and Small Business                              |                  |
|                           | STEM                                       | Engineering                                 | Engineering Essentials (1) (PLTW)^<br>Introduction to Engineering Design (PLTW) (1)^<br>Engineering Science (1)*<br>Civil Engineering and Architecture (PLTW) (1)*^  |  | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate* |                  |
|                           |  |   |  |  |   |                  |
|                           | Business, Marketing, and Finance           | Business Management                         | Business Information Management I (1)<br>Business Information Management II (1)<br>Business Management (1)*<br>Practicum in Business Management (2)* OR Career Prep I (2)*                                     | MOS Word, MOS Word Expert, MOS Excel, MOS Excel Expert                           | NO*, YES, NO*, YES  |                  |
|                           | Manufacturing                              | Welding                                     | Introduction to Welding (1)<br>Welding I (2)<br>Welding II (2)*<br>Practicum in Manufacturing (2)*   | NCCER Welding Level I, NCCER Core Level I  | YES   |                  |
| STERLING                  | Transportation, Logistics and Distribution | Automotive                                  | Principles of Transportation Systems (1)<br>Energy and Power of Transportation Systems (1)<br>Automotive Technology I: Maintenance and Light Repair (2)*<br>Automotive Technology II: Automotive Services (2)* | ASE Painting and Refinishing Entry Level, ASE Refrigerant Recovery and Recycling | YES   |                  |
|                           |  |   | Introduction to Aircraft Technology (1)<br>Aviation Maintenance (TBD)<br>Aircraft Airframe Technology (2)*<br>Aircraft Powerplant Technology (2)*  | FAA 107 Remote Drone Pilot   | NO, Aerospace Manufacturing Certification, OSHA 30 General*   | (Cold Start AMC) |
|                           |  |   | Introduction to Aircraft Technology (1)<br>Aviation Ground School (1)^   |  | FAA 107 Remote Drone Pilot  |                  |
|                           |  |   | Practicum in Transportation Systems (First-time Taken) (2)*<br>Practicum in Transportation Systems (Second-time Taken) (2)*  |  |   |                  |
|                           |  |   | Principles of Law, Public Safety, Corrections and Security (1)<br>Law Enforcement I (1)<br>Law Enforcement II (1)*   | Non-commissioned Security Officer Level II                                       | YES   |                  |
|                           | Law and Public Service                     | Law Enforcement                             | Practicum in Law, Public Safety, Corrections and Security (2)*   |  |   |                  |
|                           |  |   |  |  |   |                  |
|                           | Arts, AV Technology and Communications     | Graphic Design and Multimedia Arts          | Digital Media (1)<br>Graphic Design and Illustration I (1)<br>Graphic Design and Illustration II (1)*<br>Digital Art and Animation (1)*  | Adobe Certified Associate Photoshop  | YES   |                  |
|                           |  | Digital Communications                      | Principles of Arts, AV Technology and Communications (1)<br>Audio/Video Production I (1)<br>Audio/Video Production II (1)*<br>Practicum in Audio/Video Production (2)*   | Adobe Certified Associate Premiere Pro   | YES   |                  |
|                           | Business, Marketing, and Finance           | Business Management                         | Principles of Business, Marketing, and Finance (1)<br>Business Information Management I (1)<br>Business Information Management II (1)<br>Practicum in Business Management (2)* OR Career Preparation I (2)*    | MOS Word, MOS Word Expert, MOS Excel, MOS Excel Expert                           | NO*, YES, NO*, YES  |                  |
| WALTRIP                   | Transportation, Distribution and Logistics | Automotive                                  | Principles of Transportation Systems (1)<br>Energy and Power of Transportation Systems (1) *<br>Automotive Technology I: Maintenance and Light Repair (2) *  | ASE Refrigerant Recovery and Recycling   | ASE Maintenance Light and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling          |                  |
|                           | Information Technology                     | Information Technology Support and Services | Principles of Information Technology (1)<br>Geographic Information Systems (1)^ *<br>Raster Based Geographic Information Systems (1)^<br>Practicum in Information Technology (2)*                              |  | CompTIA A+, CompTIA Fundamentals+   | (DSA needed)     |
|                           | STEM                                       | Engineering                                 | Principles of Applied Engineering (1)<br>Manufacturing Engineering Technology (1)<br>Engineering Design and Presentation I (1) *<br>Practicum in Science, Technology, Engineering and Mathematics (2)*         | Certified SOLIDWORKS Associate   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate* |                  |
|                           | Health Science                             | Healthcare Therapeutics                     | Principles of Health Science (1)<br>Medical Terminology (1)<br>Health Science Theory (1)*<br>Pharmacology (1) *  |  | Pharmacy Technician   |                  |
|                           |  |   |  |  |   |                  |
|                           | Agriculture, Food and Natural Resources    | Animal Science                              | Principles of Agriculture, Food and Natural Resources (1)<br>Livestock Production (1)*<br>Veterinary Medical Applications (1)*<br>Advanced Animal Science (1)*   | NONE   | Certified Veterinary Assistant, Elanco Animal Science Certification                                 |                  |
|                           |  |   | Principles of Agriculture, Food and Natural Resources (1)<br>Greenhouse Operations (1)<br>Horticultural Science (1)*<br>TBD  |  |   |                  |
|                           |  | Plant Science                               | Principles of Construction (1)<br>Construction Technology I (2)  |  |   |                  |
|                           | Architecture and Construction              | Carpentry                                   |  | NCCER Core Level I   | YES   |                  |



|          |  |                                      |   |   |  |                                  |
|----------|--|--------------------------------------|---|---|--|----------------------------------|
|          | Law and Public Service                     | Legal Studies                        | Political Science II (1)*<br>Business Law (1)<br>Project Based Research (1)*<br>Principles of Health Science (1)<br>Medical Terminology (1)   |   | NONE   | ALTERNATE CCMR                   |
|          | Health Science                             | Healthcare Diagnostics               | Anatomy and Physiology (1)* AND Health Science Theory (1)*<br>Practicum in Health Science (2)* OR<br>Pharmacology (1)*  | Clinical Medical Assistant, Pharmacy Technician   | YES, YES   |                                  |
|          | Campus                                     | Career Cluster                       | Program of Study<br>2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22   | Program of Study Alignment 22/23   | Implementation                   |
| WHEATLEY | Arts, A/V Technology and Communications    | Graphic Design and Multimedia Arts   | Principles of Arts, A/V Technology, and Communications (1)<br>Animation I (1)<br>Animation II (1)*<br>Career Preparation I (2)*   | NONE  | Adobe Certified Professional in Visual Effects Using After Effects, Adobe Certified Professional in Visual Design Using Photoshop, Adobe Certified Professional in Visual Design Using Illustrator |                                  |
|          | Hospitality and Tourism                    | Culinary Arts                        | Principles of Hospitality and Tourism (1)<br>Introduction to Culinary Arts (1)<br>Culinary Arts (2)<br>Advanced Culinary Arts (2)*<br>Principles of Information Technology (1)  | ServSafe Manager  | YES  |                                  |
|          | Information Technology                     | Web Development (INACTIVE)           | Project Based Research (1)*<br>Career Preparation I (2)*<br>(none)  | NONE  | NOCTI Web Design, CWMADA   | (DSA needed)                     |
|          | Transportation, Logistics and Distribution | Automotive                           | Principles of Transportation Systems (1)<br>Automotive Basics (1)<br>Automotive Technology I: Maintenance and Light Repair (2)*<br>Practicum in Transportation Systems (2)*<br>Principles of Education and Training (1) | ASE Automotive Service Technology, ASE Brakes, ASE Electrical/Electronic Systems, ASE Engine Performance, ASE Maintenance and Light Repair, ASE Manual Drivetrain, ASE Refrigerant, ASE Suspension and Steering | YES  |                                  |
|          | Education and Training                     | Early Learning (PTECH)               | Child Development (1)<br>Child Guidance (2)*<br>Career Preparation I (2)*   | NONE (phase-in)   | NOCTI Early Childhood Education and Care - Basic, Child Development Associate  |                                  |
|          |  |                                      |   |   |  |                                  |
|          | Architecture and Construction              | Carpentry                            | Principles of Construction (1)<br>Construction Technology I (2)<br>Mill and Cabinetmaking Technology (2)*<br>Principles of Business, Marketing and Finance (1)  | NCCER Core Level I  | YES, NCCER Carpentry Level I   |                                  |
|          | Business, Marketing, and Finance           | Business Management                  | Business Information Management I (1)<br>Business Information Management II (1)*<br>Human Resource Management (0.5)* AND Global Business (0.5)*   | MOS Word, MOS Word Expert   | YES*, YES  |                                  |
|          | Manufacturing                              | Welding                              | Introduction to Welding (1)<br>Welding I (2)<br>Welding II (2)*   | NCCER Core Level I  | YES, NCCER Welding Level I   |                                  |
|          | STEM                                       | Engineering                          | Principles of Applied Engineering (1)<br>Engineering Design and Presentation I (1)*<br>Engineering Design and Presentation II (2)*<br>Engineering Design and Problem Solving (1)*                                       | OSHA 30 General   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD  |                                  |
| WISDOM   |  | Programming and Software Development | Fundamentals of Computer Science (1)<br>Computer Science I (1)<br>Computer Science II (1)*<br>Practicum in Information Technology (2)*<br>Principles of Education and Training (1)                                      |   | C++ Certified Associate Programmer, Certified Entry-Level Python Programmer, Certified Professional Programmer   | (Cold Start / DSA needed Python) |
|          | Education and Training                     | Early Learning                       | Child Development (1)<br>Child Guidance (2)*<br>Practicum in Education and Training (2)*<br>Principles of Education and Training (1)  |   | Child Development Associate  |                                  |
|          |  | Teaching and Training                | Child Development (1)<br>Instructional Practices (2)*<br>Practicum in Education and Training (2)*   | Educational Aide I  | YES  |                                  |
|          | Law and Public Service                     | Law Enforcement                      | Principles of Law, Public Safety, Corrections and Security (1)<br>Law Enforcement I (1)<br>Correctional Services (1)*<br>Federal Law Enforcement and Protective Services (1)  | Non-commissioned Security Officer Level II  | YES  |                                  |
|          |  |                                      |   |   |  |                                  |
|          | Agriculture, Food and Natural Resources    | Animal Science                       | Principles of Agriculture, Food and Natural Resources (1)<br>Livestock Production (1)*<br>Small Animal Management (0.5) OR Equine Science (0.5)<br>Practicum of Agriculture, Food and Natural Resources (2)*            | OSHA 30 General   | NO [Certified Veterinary Assistant, Elanco Animal Science Certification]   |                                  |
|          | Hospitality and Tourism                    | Lodging and Resort Management        | Principles of Hospitality and Tourism (1)<br>Hotel Management (1)<br>Travel and Tourism Management (1)<br>Practicum in Hospitality Services (2)*  |   | NOCTI Hospitality Management - Lodging - Job Ready   |                                  |
|          | Information Technology                     | Web Development                      | Principles of Information Technology (1)<br>Project Based Research (1)*<br>Web Design (1)*<br>Web Game Development (1)*   | MTA HTML5 App Development Fundamentals  | NOCTI Web Design, CWMADA   | (Cold Start)                     |
|          | Education and Training                     | Teaching and Training                | Principles of Education and Training (1)<br>Human Growth and Development (1)<br>Instructional Practices (2)*<br>Practicum in Education and Training (2)*  | Educational Aide I  | YES  |                                  |
|          |  |                                      |   |   |  |                                  |
| WORTHING |  |                                      |   |   |  |                                  |
|          |  |                                      |   |   |  |                                  |
|          |  |                                      |   |   |  |                                  |
|          |  |                                      |   |   |  |                                  |



|   |  |  |  |   |   |                                  |
|---|--|--|--|---|---|----------------------------------|
| YATES                                       | Arts, A/V Technology, and Communications | Graphic Design and Multimedia Arts           | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Professional in Visual Design Using Photoshop   |                                  |
|   |  |  | Digital Media (1)  |   |   |                                  |
|   |  |  | Commercial Photography I (1)                                       |   |   |                                  |
|   |  |  | Commercial Photography II (1)*                                     |   |   |                                  |
|   |  | Digital Communications (1)                   | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Professional in Digital Video Using Premiere Pro  |                                  |
|   |  |  | Professional Communications (0.5) AND Web Communications (0.5)     |   |   |                                  |
|   |  |  | Digital Audio Technology I (1)                                     |   |   |                                  |
|   |  |  | Digital Audio Technology II (1)*                                   |   |   |                                  |
|   |  | Digital Communications (2)                   | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Professional in Digital Video Using Premiere Pro  |                                  |
|   |  |  | Audio/Video Production I (1)                                       |   |   |                                  |
|   |  |  | Audio/Video Production II (2)*                                     |   |   |                                  |
|   |  |  | Practicum in Audio/Video Production (2)*                           |   |   |                                  |
|   | Business, Marketing and Finance          | Entrepreneurship                             | Principles of Business, Marketing, and Finance (1)                 |   | Entrepreneurship and Small Business   |                                  |
|   |  |  | Business Information Management I                                  |   |   |                                  |
|   |  |  | Entrepreneurship (1)   |   |   |                                  |
|   |  |  | Practicum in Entrepreneurship (2)*^                                |   |   |                                  |
| Transportation, Distribution, and Logistics | Distribution and Logistics               | Principles of Distribution and Logistics (1) |  | NCCER Core Level I, MSSC Certified Logistics Technician, OSHA 30 General* |   |                                  |
|   |  | Management of Transportation Systems (1)     |  |   |   |                                  |
|   |  | Distribution and Logistics (1) *             |  |   |   |                                  |
|   |  | Practicum in Distribution and Logistics (2)* |  |   |   |                                  |
|   |  |  |  |   |   |                                  |
| YWCPA                                       | STEM                                     | Biomedical Science                           | Principles of Biosciences (1)                                      |   | Medical Laboratory Assistant, Medical Laboratory Technician   | (Cold Start)                     |
|   |  |  | Biotechnology I (1)  |   |   |                                  |
|   |  |  | Biotechnology II (1)*  |   |   |                                  |
|   |  |  | Practicum in STEM (2) * OR Scientific Research and Design (1)*     |   |   |                                  |
|   |  | Engineering                                  | Principles of Applied Engineering (1)                              |   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD         |                                  |
|   |  |  | Engineering Design and Presentation I (1)*                         |   |   |                                  |
|   |  |  | Engineering Design and Presentation II (2)*                        |   |   |                                  |
|   |  |  | Engineering Science (1)* OR Practicum in STEM (2)*                 |   |   |                                  |
|   |  | Programming and Software Development         | AP Computer Science Principles (1)                                 | MOS Word, MOS Excel   | NO, NO [C++ Certified Associate Programmer, Certified Entry-Level Python Programmer, Certified Professional Programmer] | (Cold Start / DSA needed Python) |
|   |  |  | Computer Science I (1)*  |   |   |                                  |
|   |  |  | Game Programming and Design (1)*                                   |   |   |                                  |
|   |  |  | Career Preparation I (2)*  |   |   |                                  |

\* TEA Advanced CTE course

^ TEA Innovative Course

| CAMPUS       | PROGRAM OF STUDY                   | IBC ALIGNMENT   | IBC IMPLEMENTATION | Growth/Wage Category (GROWTH RATE/SALARY vs. regional median)                  |
|--------------|------------------------------------|---|--------------------|--|
| NORTH FOREST | HVAC and Sheet Metal (DCH)         | YES (NCCER Core Level 1)  |                    | HVAC Mechanics and Installers-HIGH/HIGH  |
|              | Networking Systems                 | NO (Cisco 100-490/200-301, CompTIA Network+)  | (DSA needed)       | Computer Network Support Specialists-LOW/HIGH                                  |
|              | Automotive                         | YES   |                    | Automotive Service Technicians and Mechanics-LOW/LOW                           |
|              | Animal Science                     | (NO) YES [Elanco Animal Science Cert]   |                    | Animal Breeders-HIGH/LOW<br>[Bachelor's Degree positions are HIGH/HIGH]        |
|              | Emergency Services                 | NO (OSHA Hazardous Waste Operations and Emergency Response*, IAED Emergency Telecommunicator) |                    | Firefighters-HIGH/HIGH; EMTs-HIGH/LOW, Public Safety Telecommunicator-HIGH/LOW |
|              |                                    |   |                    |  |
| WHEATLEY     | Graphic Design and Multimedia Arts | Adobe Certified Professional in Visual Effects Using After Effects                            |                    | [Bachelor's Degree] Graphic Designers-HIGH/LOW                                 |
|              | Culinary Arts                      | YES   |                    | Cooks-HIGH/LOW, Head Cooks and Chefs-HIGH/LOW                                  |
|              | Web Development                    | NOCTI Web Design, CWMADA  | (DSA needed)       | [Associate's Degree] Web Developers-HIGH/HIGH                                  |
|              | Automotive                         | YES   |                    | Automotive Service Technicians and Mechanics-LOW/LOW                           |
|              | Early Learning (PTECH)             | Child Development Associate   |                    | Childcare Workers-LOW/LOW  |

| Campus | Program of Study           | 2022-2023 CTE Course Sequence (credit value)                          | Industry Based Certification Types Earned - 2021/2022 | Program of Study Alignment 2022-2023?   | Implementation |
|--------|----------------------------|---|---|---|----------------|
| AUSTIN | Carpentry                  | CTE Options on Home Campus  | NCCER Core Level I                                    | YES   |                |
|        |                            | CTE Options on Home Campus  |   |   |                |
|        |                            | Construction Technology I (2)   |   |   |                |
|        |                            | Construction Technology II (2)*                                       |   |   |                |
|        | Business Management        | Principles of Business, Finance and Marketing (1)                     | MOS Word, Google Analytics Individual Qualification   | YES*, NO  |                |
|        |                            | Business Information Management I (1)                                 |   |   |                |
|        |                            | Business Information Management II (1)                                |   |   |                |
|        |                            | Business Management (1)*  |   |   |                |
|        | Distribution and Logistics | Principles of Maritime Science (1)*                                   | MSSC Certified Logistics Technician (attempted)       | YES   |                |
|        |                            | Management of Transportation Systems (1)                              |   |   |                |
|        |                            | Distribution and Logistics (1) *                                      |   |   |                |
|        |                            | Practicum in Distribution and Logistics (2) *                         |   |   |                |
|        | Maritime Science           | Principles of Maritime Science (1)                                    | MSSC Certified Logistics Technician (attempted)       | OSHA 30 Hour General*   |                |
|        |                            | Maritime Science I (1)*   |   |   |                |
|        |                            | Maritime Science II (1)*  |   |   |                |
|        |                            | Practicum in Distribution and Logistics (2)*                          |   |   |                |
|        | Networking Systems         | Principles of Information Technology (1)                              | MTA Networking Fundamentals                           | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTECH                            | (DSA needed)   |
|        |                            | Computer Maintenance (1)  |   |   |                |
|        |                            | Networking (1)*   |   |   |                |
|        |                            | Practicum in Information Technology (2)*                              |   |   |                |
|        | Web Development            | Principles of Information Technology (1)                              | NONE  | Oracle Certified Associate Java SE 8 Programmer, NOCTI Web Design - Job Ready                       | (DSA needed)   |
|        |                            | Project Based Research (1)*   |   |   |                |
|        |                            | Web Design (1)*   |   |   |                |
|        |                            | Web Game Development (1) *OR Practicum in Information Technology (2)* |   |   |                |
|        | Welding                    | Principles of Manufacturing (1)                                       | NCCER Core Level I, NCCER Welding Level I             | YES, YES  |                |
|        |                            | Introduction to Welding (1)   |   |   |                |
|        |                            | Welding I (2)   |   |   |                |
|        |                            | Welding II (2)*   |   |   |                |
|        | Engineering                | Principles of Applied Engineering (1)                                 | AutoDesk Certified Professional or User AutoCAD       | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate* |                |
|        |                            | Engineering Design and Presentation I (1)*                            |   |   |                |
|        |                            | Engineering Design and Problem Solving(1)*                            |   |   |                |
|        |                            | Engineering Design and Presentation II (2)*                           |   |   |                |
|        | Teaching and Training      | Principles of Education and Training (1)                              | Educational Aide I                                    | YES   |                |
|        |                            | Human Growth and Development (1)                                      |   |   |                |
|        |                            | Instructional Practices (2)*  |   |   |                |
|        |                            | Practicum in Education and Training (2)*                              |   |   |                |

| Campus   | Program of Study                         | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23 | Implementation   |
|----------|--|---|--|----------------------------------|------------------|
| BELLAIRE | Graphic Design and Multimedia Arts       | Principles of Arts, A/V Technology and Communications (1)                                   | Adobe Certified Associate Photoshop  | YES                              |                  |
|          |  | Graphic Design and Illustration I (1)   |  |                                  |                  |
|          |  | Graphic Design and Illus. II (1)* OR Digital Design and Media Prod. (1)                     |  |                                  |                  |
|          |  | Practicum in Entrepreneurship (2)*^   |  |                                  |                  |
|          | Business Management                      | Principles of Business, Marketing, and Finance (1)  | Microsoft Office Specialist Word, Entrepreneurship and Small Business  | YES*, YES                        |                  |
|          |  | Business Law (1)  |  |                                  |                  |
|          |  | Global Business (.5)* AND Human Resources Management (.5)*                                  |  |                                  |                  |
|          |  | Statistics and Business Decision Making (1)*  |  |                                  |                  |
|          | Accounting and Financial Services        | Principles of Business, Marketing, and Finance (1) OR Business Information Management (1)   | Inuit Quickbooks Certified User, MOS Excel Expert  |                                  |                  |
|          |  | Money Matters (1)   |  |                                  |                  |
|          |  | Accounting I (1) OR Financial Mathematics (1)   |  |                                  |                  |
|          |  | Securities and Investments (1)*   |  |                                  |                  |
|          | Marketing and Sales                      | Principles of Business, Marketing, and Finance (1) OR Business Information Management I (1) | Entrepreneurship and Small Business  |                                  |                  |
|          |  | Marketing (1)*  |  |                                  |                  |
|          |  | Advertising (.5) AND Sports and Entertainment Marketing (.5)                                |  |                                  |                  |
|          |  | Statistics and Business Decision Making (1)*  |  |                                  |                  |
|          | Distribution and Logistics               | Principles of Distribution and Logistics (1)  | Certified Logistics Technician, OSHA 30 General*   |                                  | (DSA needed CLT) |
|          |  | Occupational Safety and Environmental Technology (1)^                                       |  |                                  |                  |
|          |  | Raster Based Geographic Information Systems (1)*  |  |                                  |                  |
|          |  | Distribution and Logistics (1)*   |  |                                  |                  |
|          | Animal Science                           | Principles of Agriculture, Food, and Natural Resources (1)                                  | Certified Veterinary Assistant Level 1, Elanco Fundamentals of Animal Science, Licensed Veterinary Technician                                |                                  |                  |
|          |  | Small Animal Management (.5) AND Equine Science (.5)  |  |                                  |                  |
|          |  | Livestock Production (1)*   |  |                                  |                  |
|          |  | Advanced Animal Science (1)* OR Veterinary Medical Applications (1)*                        |  |                                  |                  |
|          | Plant Science                            | Principles of Agriculture, Food, and Natural Resources (1)                                  | TSFA Level 1 Floral Certification  |                                  |                  |
|          |  | Floral Design (1)*  |  |                                  |                  |
|          |  | Advanced Floral Design (1)*   |  |                                  |                  |
|          |  | Advanced Plant and Soil Science (1)*  |  |                                  |                  |
|          | Programming and Software Development (1) | Computer Science I PAP (1)  | C++ Certified Associate Programmer, CompTIA Linux+, Oracle Certified Associate Java SE 8 Programmer, Oracle Database SQL Certified Associate |                                  | (DSA needed)     |
|          |  | AP Computer Science Principles (1)  |  |                                  |                  |
|          |  | AP Computer Science A (2)*  |  |                                  |                  |
|          |  | Computer Science III (1)*   |  |                                  |                  |
|          | Programming and Software Development (2) | Fundamentals of Computer Science (1)  | Apple App Development with Swift, Oracle Certified Associate Java SE 8 Programmer, Oracle Database SQL Certified Associate                   |                                  | (DSA needed)     |
|          |  | Computer Science I PAP (1)  |  |                                  |                  |
|          |  | Mobile Application Development (1)  |  |                                  |                  |
|          |  | Computer Science II PAP (1)*  |  |                                  |                  |
|          | Family and Community Services            | Principles of Human Services (1)  | Child Development Associate  |                                  |                  |
|          |  | Professional Communications (.5) AND Interpersonal Studies (.5)                             |  |                                  |                  |
|          |  | Lifetime Nutrition and Wellness (1)   |  |                                  |                  |
|          |  | Counseling and Mental Health (1)*   |  |                                  |                  |

| Campus | Program of Study                    | 2022-2023 CTE Course Sequence (credit value)                        | Industry Based Certification Types Earned - 21/22            | Program of Study Alignment 22/23   | Implementation |
|--------|-------------------------------------|---|--|--|----------------|
| CHAVEZ | Environmental and Natural Resources | Principles of Agriculture, Food and Natural Resources (1)           |  | Water Operators - Class D, Natural Resources Systems   | (Cold Start!)  |
|        |                                     | Wildlife, Fisheries, and Ecology Management (1)                     |  |  |                |
|        |                                     | Forestry and Woodland Ecosystems (1)                                |  |  |                |
|        |                                     | Range Ecology and Management (1)*                                   |  |  |                |
|        | Graphic Design and Multimedia Arts  | Principles of Arts, A/V Technology and Communications (1)           | Adobe Certified Illustrator, Adobe Certified Photoshop       | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]   |                |
|        |                                     | Graphic Design and Illustration I w/Lab (2)                         |  |  |                |
|        |                                     | Graphic Design and Illustration II (1)*                             |  |  |                |
|        |                                     | Practicum in Graphic Design and Illustration (2)*                   |  |  |                |
|        | Digital Communications              | Principles of Arts, A/V Technology and Communications (1)           | Adobe Certified Associate Premiere Pro                       | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop, |                |
|        |                                     | A/V Production I (1)  |  |  |                |
|        |                                     | A/V Production II (1)*  |  |  |                |
|        |                                     | Practicum in A/V Production (2)* OR Digital Audio Technology I (1)* |  |  |                |
|        | Animal Science                      | Principles of Agriculture, Food and Natural Resources (1)           | Certified Veterinary Assistant Level I                       | YES  |                |
|        |                                     | Livestock Production (1)*   |  |  |                |
|        |                                     | Veterinary Medical Applications (1)*                                |  |  |                |
|        |                                     | Advanced Animal Science (1)*  |  |  |                |
|        | Plant Science                       | Principles of Agriculture, Food and Natural Resources (1)           | Texas State Floral Association Floral Skills Knowledge Based | YES [TSFA Level 1 Floral Certification]  |                |
|        |                                     | Greenhouse Operations (1)   |  |  |                |
|        |                                     | Floral Design (1)*  |  |  |                |
|        |                                     | Advanced Plant and Soil Science (1)*                                |  |  |                |
|        | Engineering                         | Principles of Applied Engineering (1)                               |  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++  |                |
|        |                                     | Engineering Design and Presentation I (1)                           |  |  |                |
|        |                                     | Digital Electronics (1)*  |  |  |                |
|        |                                     | Engineering Design and Problem Solving (1)*                         |  |  |                |
|        | Renewable Energy                    | Principles of Applied Engineering (1)                               |  | NCCER Electronic System Technician Level I, OSHA 30 General*   |                |
|        |                                     | AC/DC Electronics (1)   |  |  |                |
|        |                                     | Solid State Electronics (1)*  |  |  |                |
|        |                                     | Digital Electronics (1)*  |  |  |                |
|        | Emergency Services (1)              | Principles of Law, Public Safety, Corrections, and Security (1)     |  | OSHA Harzardous Waste Operations and Emergency Response*   |                |
|        |                                     | Disaster Response (1)^  |  |  |                |
|        |                                     | Emergency Medical Technician - Basic (2)*^                          |  |  |                |
|        |                                     | Project Based Research (1)*   |  |  |                |
|        | Emergency Services (2)              | Principles of Law, Public Safety, Corrections, and Security (1)     |  | OSHA Harzardous Waste Operations and Emergency Response*   |                |
|        |                                     | Disaster Response (1)^  |  |  |                |
|        |                                     | Firefighter I (2)*  |  |  |                |
|        |                                     | Firefighter II (3)*   |  |  |                |
|        | Healthcare Therapeutic              | Principles of Health Science (1)                                    | Pharmacy Technician  | YES  |                |
|        |                                     | Medical Microbiology (1)*   |  |  |                |
|        |                                     | Medical Terminology (1)   |  |  |                |
|        |                                     | Pathophysiology (2)* OR Practicum in Health Science (2)*            |  |  |                |

| Campus  | Program of Study       | 2022-2023 CTE Course Sequence (credit value)         | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23 | Implementation |
|---------|------------------------|--|---|----------------------------------|----------------|
| DEBAKEY | Healthcare Diagnostics | Principles of Health Science (1)                     | Certified Clinical Medical Assistant              | YES                              |                |
|         |                        | Health Science Theory (1)*                           |   |                                  |                |
|         |                        | Practicum in Health Science (First Time Taken) (2)*  |   |                                  |                |
|         |                        | Practicum in Health Science (Second Time Taken) (2)* |   |                                  |                |
|         | Healthcare Therapeutic | Introduction to Pharmacy Science (1)                 | Pharmacy Technician                               | YES, Patient Care Technician     |                |
|         |                        | Health Science Theory (1)*                           |   |                                  |                |
|         |                        | Practicum in Health Science (First Time Taken) (2)*  |   |                                  |                |
|         |                        | Practicum in Health Science (Second Time Taken) (2)* |   |                                  |                |

| Campus     | Program of Study | 2022-2023 CTE Course Sequence (credit value)                        | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23           | Implementation |
|------------|------------------|---|---|--|----------------|
| EAST EARLY | Renewable Energy | Principles of Applied Engineering (1)                               |   | NCCER Electronic System Technician Level I |                |
|            |                  | AC/DC Electronics (1)   |   |  |                |
|            |                  | Project-Based Research (1)*   |   |  |                |
|            |                  | Scientific Research and Design (1)* OR Solid State Electronics (1)* |   |  |                |



| Campus   | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                      | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23   | Implementation |
|----------|--------------------------------------|---|---|--|----------------|
| EASTWOOD | Engineering                          | Principles of Applied Engineering (1)                             | OSHA 30 General                                   | Autodesk Associate (Certified User) AutoCAD/+++,<br>Autodesk Certified Professional in AutoCAD/+++ |                |
|          |                                      | Engineering Design and Presentation I (1)*                        |   |  |                |
|          |                                      | Engineering Design and Problem Solving (1)*                       |   |  |                |
|          |                                      | Scientific Research and Design (1)*                               |   |  |                |
|          | Programming and Software Development | AP Computer Science Principles (1)                                |   | Certified Entry-Level Python Programmer (PCEP)   | (DSA needed)   |
|          |                                      | Game Programming and Design (1)                                   |   |  |                |
|          |                                      | AP Computer Science A (2)* OR Mobile Application Development (1)* |   |  |                |
|          |                                      | Independent Study in Technology Applications (2)*                 |   |  |                |

| Campus             | Program of Study | 2022-2023 CTE Course Sequence (credit value)                       | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23           | Implementation |
|--------------------|------------------|--|---|--|----------------|
| ENERGIZED FOR STEM | Renewable Energy | Foundations of Energy (1)  |   | NCCER Electronic System Technician Level I |                |
|                    |                  | Introduction to Renewable Energy (1)                               |   |  |                |
|                    |                  | Environmental Sustainability (1) (PLTW)*                           |   |  |                |
|                    |                  | Practicum in Science, Technology, Engineering and Mathematics (2)* |   |  |                |

| Campus           | Program of Study                               | 2022-2023 CTE Course Sequence (credit value)                          | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23   | Implementation |
|------------------|--|---|---|--|----------------|
| ENERGY INSTITUTE | Advanced Manufacturing and Machinery Mechanics | Principles of Manufacturing (1)                                       | Certified SOLIDWORKS Associate                    | NO, OSHA 30 General*   |                |
|                  |  | Robotics I (1) OR Manufacturing Engineering Technology I (1)          |   |  |                |
|                  |  | Robotics II (1)* OR Manufacturing Engineering Technology II (1)*      |   |  |                |
|                  |  | Practicum in Manufacturing (2)*                                       |   |  |                |
|                  | Engineering                                    | Introduction to Engineering Design (1)                                | OSHA 30 General                                   | Autodesk Associate (Certified User) AutoCAD/+++,<br>Autodesk Certified Professional in AutoCAD/+++, Certified<br>SOLIDWORKS Associate* |                |
|                  |  | Engineering Science (1)*  |   |  |                |
|                  |  | Environmental Sustainability (1) (PLTW)*                              |   |  |                |
|                  |  | Engineering Design and Problem Solving (1)* OR Practicum in STEM (2)* |   |  |                |

| Campus                         | Program of Study                    | 2022-2023 CTE Course Sequence (credit value)              | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23   | Implementation |
|--------------------------------|-------------------------------------|---|--|--|----------------|
| FURR<br>(Jordan Career Center) | Environmental and Natural Resources | Principles of Agriculture, Food and Natural Resources (1) | OSHA 30 General  | Water Operators - Class D, Natural Resources Systems                                 | (Cold Start)   |
|                                |                                     | Wildlife, Fisheries, and Ecology Management (1)           |  |  |                |
|                                |                                     | Forestry and Woodland Ecosystems (1)                      |  |  |                |
|                                |                                     | Scientific Research and Design (1)*                       |  |  |                |
|                                | Graphic Design and Multimedia Arts  | Principles of Arts, A/V Tech. and Communications (1)      | Adobe Certified Associate Illustrator, Adobe Certified Associate Photoshop, Adobe Certified Associate Premiere Pro | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop] |                |
|                                |                                     | Digital Design and Media Production (1)                   |  |  |                |
|                                |                                     | Digital Art and Animation (1)*                            |  |  |                |
|                                |                                     | Career Preparation I (1)*                                 |  |  |                |
|                                | Healthcare Therapeutics             | Principles of Health Science (1)                          | Certified Clinical Medical Assistant   | Certified Clinical Medical Assistant   |                |
|                                |                                     | Medical Terminology (1)                                   |  |  |                |
|                                |                                     | Health Science Theory (1)*                                |  |  |                |
|                                |                                     | Pathophysiology (1)*                                      |  |  |                |

| Campus | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23   | Implementation |
|--------|--------------------------------------|---|--|--|----------------|
| HAIS   | Entrepreneurship                     | Business Information Management I (1)   | MOS Word, MOS Excel  | Entrepreneurship and Small Business  |                |
|        |                                      | Mobile Application Development (1)  |  |  |                |
|        |                                      | Project Based Research (1)*   |  |  |                |
|        |                                      | Practicum in Entrepreneurship (2)*^   |  |  |                |
|        | Graphic Design and Multimedia Arts   | Graphic Design and Illustration I (1)   | Adobe Certified Associate Illustrator, Adobe Certified Associate Photoshop, Adobe Certified Expert Illustrator | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]   |                |
|        |                                      | Video Game Programming (1)^   |  |  |                |
|        |                                      | Advanced Video Game Programming (1)*^   |  |  |                |
|        |                                      | Career Preparation (2)* OR Practicum in Entrepreneurship (2)*                         |  |  |                |
|        | Programming and Software Development | Computer Science I (1)  |  | Certified Entry-Level Python Programmer (PCEP)   | (DSA needed)   |
|        |                                      | AP Computer Science Principles (1)  |  |  |                |
|        |                                      | Mobile Application Development (1)  |  |  |                |
|        |                                      | Career Preparation (2)* OR Practicum in Entrepreneurship (2)*^                        |  |  |                |
|        | Engineering                          | Principles of Applied Engineering (1)   |  | Autodesk Associate (Certified User) AutoCAD/+++, Autodesk Certified Professional in AutoCAD/+++, Certified SOLIDWORKS Associate* |                |
|        |                                      | Engineering Science (1)*  |  |  |                |
|        |                                      | Engineering Design and Problem Solving (1)*   |  |  |                |
|        |                                      | Scientific Research and Design (1)*   |  |  |                |
|        | Government and Public Administration | Principles of Government and Public Administration (1)                                |  | NONE   | ALTERNATE CCMR |
|        |                                      | Political Science I (1)   |  |  |                |
|        |                                      | Political Science II (1)*   |  |  |                |
|        |                                      | Planning and Governance (1)* OR Practicum in Local, State and Federal Government (2)* |  |  |                |

| Campus                            | Program of Study                               | 2022-2023 CTE Course Sequence (credit value)                              | Industry Based Certification Types Earned - 21/22                           | Program of Study Alignment 22/23  | Implementation |
|-----------------------------------|--|---|---|---|----------------|
| HEIGHTS<br>(Jordan Career Center) | Graphic Design and Multimedia Arts             | Digital Design and Media Production (1)                                   | Adobe Certified Associate Photoshop, Adobe Certified Expert Photoshop       | YES, YES [Adobe Certified Professional in Visual Design Using Illustrator/Photoshop]  |                |
|                                   |  | Digital Media (1)   |   |   |                |
|                                   |  | Graphic Design and Illustration I (1)                                     |   |   |                |
|                                   |  | Graphic Design and Illustration II (1)*                                   |   |   |                |
|                                   | Digital Communications                         | Principles of Arts, A/V Technologies and Communications (1)               | Adobe Certified Associate Premiere Pro, Adobe Certified Expert Premiere Pro | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|                                   |  | Audio/Video Production I (1)  |   |   |                |
|                                   |  | Audio/Video Production II w/Lab (2) *                                     |   |   |                |
|                                   |  | Digital Audio Technology I (1)  |   |   |                |
|                                   | Accounting and Financial Services              | Principles of Business and Marketing Finance (1)                          | Intuit QuickBooks Certified User  | YES   |                |
|                                   |  | Accounting I (1)  |   |   |                |
|                                   |  | Accounting 2 (1) *  |   |   |                |
|                                   |  | Financial Mathematics (1) *   |   |   |                |
|                                   | Business Management                            | Principles of Business and Marketing Finance (1)                          | MOS Word  | YES*, MOS Word Expert   |                |
|                                   |  | Business Information Management I (1)                                     |   |   |                |
|                                   |  | Business Information Management II (1)                                    |   |   |                |
|                                   |  | Business Management (1)*  |   |   |                |
|                                   | Automotive                                     | Energy and Power of Transportation Systems (1) *                          | ASE Brakes Entry Level, ASE Refrigerant Recovery and Recycling              | YES   |                |
|                                   |  | Automotive Basics (1)   |   |   |                |
|                                   |  | Automotive Technology I (2) *   |   |   |                |
|                                   |  | Automotive Technology II (2)* OR Practicum in Transportation Systems (2)* |   |   |                |
|                                   | Web Development                                | Web Game Development (1) *  |   | NOCTI Web Design - Job Ready  | (Cold Start)   |
|                                   |  | Web Design (1) *  |   |   |                |
|                                   |  | Independent Study In Technology Applications (1) *                        |   |   |                |
|                                   |  | Project Based Research (1) *  |   |   |                |
|                                   | Advanced Manufacturing and Machinery Mechanics | Principles of Applied Engineering (1)                                     | OSHA 30 General   | YES*  |                |
|                                   |  | Engineering Design and Presentation I (1) *                               |   |   |                |
|                                   |  | Robotics I (1)  |   |   |                |
|                                   |  | Robotics II (1) *   |   |   |                |
|                                   | Healthcare Diagnostics                         | Principles of Health Science (1)  | Certified EKG Technician, Patient Care Technician                           | YES   |                |
|                                   |  | Health Science Theory (1) *   |   |   |                |
|                                   |  | Anatomy and Physiology (1) *  |   |   |                |
|                                   |  | Practicum in Health Science (2) *   |   |   |                |

| Campus | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                    | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23 | Implementation |
|--------|--------------------------------------|---|---|----------------------------------|----------------|
| HSLJ   | Cybersecurity                        | Foundations of Cybersecurity (1)                                |   | Comp TIA A+/Network+/Security+   | (DSA needed)   |
|        |                                      | Internetworking Technologies (1)^                               |   |                                  |                |
|        |                                      | TBD   |   |                                  |                |
|        |                                      | TBD   |   |                                  |                |
|        | Government and Public Administration | Principles of Government and Public Administration (1)          | MOS Word  | NONE                             | ALTERNATE CCMR |
|        |                                      | Political Science I (1)   |   |                                  |                |
|        |                                      | Political Science II (1)*                                       |   |                                  |                |
|        |                                      | Revenue, Tax, and Regulation (1) *                              |   |                                  |                |
|        | Emergency Services                   | Principles of Law, Public Safety, Corrections and Security (1)  | IAED Emergency Telecommunicator                   | YES                              |                |
|        |                                      | Law Enforcement I (1)   |   |                                  |                |
|        |                                      | National Security (1)*  |   |                                  |                |
|        |                                      | Practicum in Law, Public Safety, Corrections, and Security (2)* |   |                                  |                |
|        | Law Enforcement                      | Principles of Law, Public Safety, Corrections and Security (1)  | Non-Commissioned Security Officer Level II        | YES                              |                |
|        |                                      | Law Enforcement I (1)   |   |                                  |                |
|        |                                      | Law Enforcement II (1)*   |   |                                  |                |
|        |                                      | Forensic Science (1)  |   |                                  |                |
|        | Legal Studies                        | Principles of Law, Public Safety, Corrections and Security (1)  | MOS Excel   | NONE                             | ALTERNATE CCMR |
|        |                                      | Political Science I (1) OR Business Law (1)                     |   |                                  |                |
|        |                                      | Political Science II (1) * OR Political Science I (1)           |   |                                  |                |
|        |                                      | Court Systems and Practices (1)                                 |   |                                  |                |



| Campus | Program of Study       | 2022-2023 CTE Course Sequence (credit value)            | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23   | Implementation |
|--------|------------------------|---|---|--|----------------|
| HSPVA  | Digital Communications | Principles of Arts A/V Technology and Communication (1) |   | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|        |                        | Digital Communications in the 21st Century (1)          |   |  |                |
|        |                        | Audio/Video Production I (1)                            |   |  |                |
|        |                        | Audio/Video Production II (1)*                          |   |  |                |

| Campus                                 | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22                                    | Program of Study Alignment 22/23   | Implementation |
|--|--------------------------------------|---|--|--|----------------|
| HOUSTON MSTC<br>(Jordan Career Center) | Plumbing and Pipefitting             | Principles of Construction (1)  | NCCER Core Level I   | NO, NCCER Pipefitting Level I/Plumbing Level I, OSHA 30 Hour General OR Construction*  |                |
|  |                                      | Plumbing Technology I (1)   |  |  |                |
|  |                                      | Plumbing Technology II (2)*   |  |  |                |
|  |                                      | Practicum in Construction Technology (2)*   |  |  |                |
|  | Business Management                  | Business Information Management I (1)   | MOS Word, MOS Excel  | YES* [MOS Word Expert, MOS Excel Expert]   |                |
|  |                                      | Business Information Management II w/Lab (2)  |  |  |                |
|  |                                      | Business Management *(1) AND Human Resources Management (0.5)* AND Global Business* (0.5) |  |  |                |
|  |                                      | Practicum in Business Management (2)*   |  |  |                |
|  | Graphic Design and Multimedia Arts   | Principles of Arts, A/V Technology, and Communications (1)                                | Adobe Certified Associate Photoshop  | YES [Adobe Certified Professional in Visual Design Using Photoshop]  |                |
|  |                                      | Graphic Design and Illustration I (1)   |  |  |                |
|  |                                      | Graphic Design and Illustration II w/Lab (2)*   |  |  |                |
|  |                                      | Practicum in Entrepreneurship (2)*^   |  |  |                |
|  | Digital Communications               | Principles of Arts, A/V Technology, and Communications (1)                                |  | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|  |                                      | Audio/Video Production I (1)  |  |  |                |
|  |                                      | Audio/Video Production II w/Lab (2)*  |  |  |                |
|  |                                      | Practicum in Entrepreneurship (2)*^   |  |  |                |
|  | Automotive                           | Principles of Transportation Systems (1)  | ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling | YES  |                |
|  |                                      | Automotive Basics (1)   |  |  |                |
|  |                                      | Automotive Technology I (2)*  |  |  |                |
|  |                                      | Automotive Technology II (2)* OR Practicum in Transport. Systems (2)*                     |  |  |                |
|  | Networking Systems                   | Principles of Information Technology (1)  | MTA Windows Operating System Fundamentals  | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTech   | (DSA needed)   |
|  |                                      | Computer Maintenance w/ Lab (2)   |  |  |                |
|  |                                      | Networking w/ Lab (2)*  |  |  |                |
|  |                                      | Computer Technician Practicum (2)*  |  |  |                |
|  | Drone (Unmanned Flight)              | Robotics I (1)  |  | FAA Part 107 Remote Drone Pilot  |                |
|  |                                      | Robotics II (2)*  |  |  |                |
|  |                                      | Introduction to Unmanned Aerial Vehicles (1)^   |  |  |                |
|  |                                      | Practicum in Manufacturing (2)*   |  |  |                |
|  | Programming and Software Development | Fundamentals of Computer Science (1)  |  | Certified Entry-Level Python Programmer (PCEP)   | (DSA needed)   |
|  |                                      | Computer Science I (1)  |  |  |                |
|  |                                      | Computer Science II (1)*  |  |  |                |
|  |                                      | Computer Science III (1)*   |  |  |                |
|  | Healthcare Diagnostics               | Principles of Health Science (1)  | Certified Clinical Medical Assistant   | YES  |                |
|  |                                      | Medical Terminology (1)   |  |  |                |
|  |                                      | Health Science Theory* (1) AND Anatomy and Physiology* (1)                                |  |  |                |
|  |                                      | Practicum in Health Science (2)*  |  |  |                |
|  | Cosmetology                          | Introduction to Cosmetology (1)   | Cosmetology Operator License   | YES  |                |
|  |                                      | Cosmetology I (2)*  |  |  |                |
|  |                                      | Nail Care, Enhancements and Spa Services (2)^   |  |  |                |
|  |                                      | Cosmetology II (2)*   |  |  |                |

| Campus | Program of Study                   | 2022-2023 CTE Course Sequence (credit value)                     | Industry Based Certification Types Earned - 21/22                                     | Program of Study Alignment 22/23   | Implementation |
|--------|------------------------------------|--|---|--|----------------|
| JONES  | Architectural Design               | Principles of Architecture (1)                                   | Autodesk Certified Professional or User AutoCAD                                       | YES, Autodesk Associate (Certified User) AutoCAD, Autodesk Certified Professional in AutoCAD for Design and Drafting |                |
|        |                                    | Architectural Design I (1)                                       |   |  |                |
|        |                                    | Architectural Design II (2)*                                     |   |  |                |
|        |                                    | Practicum in Architectural Design (2)*                           |   |  |                |
|        | HVAC and Sheet Metal (PTECH 22/23) | Principles of Construction (1)                                   | OSHA 30 Hour General  | YES* [OSHA 30 Hour General/Construction*, NCCER Core Level I/HVAC Level I, Refrigerant Handling EPA 608]             |                |
|        |                                    | Heating, Ventilation, and Air Conditioning and Refr. Tech I (1)  |   |  |                |
|        |                                    | Heating, Ventilation, and Air Conditioning and Refr. Tech II (2) |   |  |                |
|        |                                    | Practicum in Construction Technology (2)*                        |   |  |                |
|        | Healthcare Diagnostics             | Principles of Health Science (1)                                 | Phlebotomy Technician, Certified EKG Technician, Certified Clinical Medical Assistant | YES  |                |
|        |                                    | Health Science Theory (1)*                                       |   |  |                |
|        |                                    | Anatomy and Physiology (1)*                                      |   |  |                |
|        |                                    | Practicum in Health Science (2)* OR Medical Microbiology (1)*    |   |  |                |

| Campus                       | Program of Study                       | 2022-2023 CTE Course Sequence (credit value)   | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23                                    | Implementation |
|------------------------------|--|--|--|---|----------------|
| Barbara Jordan Career Center | Construction Management and Inspection | CTE Options on Home Campus   | NCCER Core Level I   | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Construction Management I (2)  |  |   |                |
|                              |  | Construction Management II (2)*  |  |   |                |
|                              | Marketing and Sales                    | CTE Options on Home Campus   | Entrepreneurship and Small Business  | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Retail Management (1)* AND Entrepreneurship (1)  |  |   |                |
|                              |  | Advanced Marketing (2)*  |  |   |                |
|                              | Culinary Arts                          | CTE Options on Home Campus   | ServSafe Manager   | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Culinary Arts (2)  |  |   |                |
|                              |  | Advanced Culinary Arts (2)*  |  |   |                |
|                              | Automotive                             | CTE Options on Home Campus   | ASE Refrigerant Recovery and Recycling, ASE Maintenance and Light Repair Entry Level (plus level 1 workforce certificates via college) | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Automotive Technology I DCH (2)*   |  |   |                |
|                              |  | Automotive Technology II DCH (2)*  |  |   |                |
|                              | Architectural Design                   | CTE Options on Home Campus   |  | Autodesk Associate (Certified User) AutoCAD                         |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Principles of Architectural Design (1) AND Architectural Design I (1)                          |  |   |                |
|                              |  | Architectural Design II (2)*   |  |   |                |
|                              | Electrical                             | CTE Options on Home Campus   |  | NCCER Core Level I, NCCER Electrical Level I, OSHA 30 Hour General* |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Principles of Construction (1) AND Electrical Technology I (1)                                 |  |   |                |
|                              |  | Electrical Technology II (2)*  |  |   |                |
|                              | Refining & Chemical Processes          | CTE Options on Home Campus   |  | NCCER Instrumentation Level I                                       |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Principles of Applied Engineering (1) AND Applied Mathematics for Technical Professionals (1)* |  |   |                |
|                              |  | Introduction to Process Technology (1) AND Petrochemical Safety, Health, and Environment (1)*  |  |   |                |
|                              | Welding                                | CTE Options on Home Campus   | NCCER Welding Level I  | YES [NCCER Core Level I, NCCER Welding Level I. AWS Sense]          |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Welding I (2) DCH  |  |   |                |
|                              |  | Welding II (2)* DCH  |  |   |                |
|                              | Teaching and Training                  | CTE Options on Home Campus   | Educational Aide I   | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Principles of Education and Training (1) AND Child Development (1)                             |  |   |                |
|                              |  | Instructional Practices (2)*   |  |   |                |
|                              | Cosmetology                            | CTE Options on Home Campus   | Cosmetology Operator's License   | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Cosmetology I (2)* AND Nail Care, Enhancements and Spa Services (1)*                           |  |   |                |
|                              |  | Cosmetology II (2)* AND Principles of Cosmetology Design and Color Theory (1)                  |  |   |                |
|                              | Government and Public Administration   | CTE Options on Home Campus   |  | NONE  |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Political Science I (1) AND Planning and Governance (1)*                                       |  |   |                |
|                              |  | Political Science II (1)* AND Public Management and Administration (1)*                        |  |   |                |
|                              | Healthcare Diagnostics                 | CTE Options on Home Campus   | Certified Clinical Medical Assistant   | YES   |                |
|                              |  | CTE Options on Home Campus   |  |   |                |
|                              |  | Principles of Health Science (1) AND Health Science Theory (1)*                                |  |   |                |
|                              |  | Practicum in Health Science (2)*   |  |   |                |

| Campus   | Program of Study                             | 2022-2023 CTE Course Sequence (credit value)              | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23                              | Implementation |
|----------|--|---|---|---|----------------|
| KASHMERE | Graphic Design and Multimedia Arts           | Principles of Arts, A/V Technology and Communications (1) |   | Adobe Certified Professional in Visual Design Using Photoshop |                |
|          |  | Graphic Design and Illustration I (1)                     |   |   |                |
|          |  | Animation I (1)   |   |   |                |
|          |  | Animation II (1)*   |   |   |                |
|          | Graphic Design and Multimedia Arts (Futures) | Principles of Arts, A/V Technology and Communications (1) |   | Adobe Certified Professional in Visual Design Using Photoshop |                |
|          |  | Graphic Design and Illustration DCH (1)                   |   |   |                |
|          |  | Animation I DCH (1)                                       |   |   |                |
|          |  | Practicum in Graphic Design and Illustration DCH (2)*     |   |   |                |
|          | Entrepreneurship                             | Business Information Management I (1)                     | MOS Word  | Entrepreneurship and Small Business                           |                |
|          |  | Entrepreneurship I (1)                                    |   |   |                |
|          |  | Entrepreneurship II (1)^                                  |   |   |                |
|          |  | Practicum in Entrepreneurship (2)*^                       |   |   |                |

| Campus | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)   | Industry Based Certification Types Earned - 21/22              | Program of Study Alignment 22/23  | Implementation |
|--------|--------------------------------------|--|--|---|----------------|
| LAMAR  | Graphic Design and Multimedia Arts   | Principles of Arts, A/V Technology, and Communications (1)   | Adobe Certified Associate Photoshop                            | YES [Adobe Certified Professional in Visual Design Using Photoshop]   |                |
|        |                                      | Graphic Design and Illustration I (1)  |  |   |                |
|        |                                      | Graphic Design and Illustration II (1)*  |  |   |                |
|        |                                      | Commercial Photography I (1)   |  |   |                |
|        | Digital Communications               | Principles of Arts, A/V Technology, and Communications (1)   | Adobe Certified Associate Premiere Pro                         | YES [Adobe Certified Professional in Digital Video Using Adobe Premiere Pro], Adobe Certified Professional in Visual Design Using Photoshop |                |
|        |                                      | Audio/Video Production I (1)   |  |   |                |
|        |                                      | Audio/Video Production II (1)*   |  |   |                |
|        |                                      | Digital Audio Technology I (1)   |  |   |                |
|        | Accounting and Financial Services    | Principles of Business, Marketing and Finance (1)  | MOS Excel Expert, Quickbooks Certified User                    | YES   |                |
|        |                                      | Money Matters (1)  |  |   |                |
|        |                                      | Accounting I (1)   |  |   |                |
|        |                                      | Accounting II (2)*   |  |   |                |
|        | Business Management                  | Principles of Business, Marketing and Finance (1)  | Entrepreneurship and Small Business, MOS Word, MOS Expert Word | YES [MOS Word Expert]   |                |
|        |                                      | Business Information Management I (1)  |  |   |                |
|        |                                      | Business Management (1)*   |  |   |                |
|        |                                      | Practicum of Business Management (2)* OR Global Business (0.5) * AND Human Resources Management (0.5)* |  |   |                |
|        | Culinary Arts                        | Principles of Hospitality and Tourism (1)  |  | ServSafe Manager  |                |
|        |                                      | Introduction to Culinary Arts (1)  |  |   |                |
|        |                                      | Culinary Arts (2)  |  |   |                |
|        |                                      | Food Science (1) * OR Practicum in Culinary Arts (2)*  |  |   |                |
|        | Lodging and Resort Management        | Principles of Hospitality and Tourism (1)  |  | Certified Hospitality and Tourism Professional  |                |
|        |                                      | Hotel Management (1)   |  |   |                |
|        |                                      | Travel and Tourism (1)   |  |   |                |
|        |                                      | Hospitality Services (2)* OR Practicum in Hospitality Services (2)*                                    |  |   |                |
|        | Animal Science                       | Principles of Agriculture, Food and Natural Resources (1)  | Certified Veterinary Assistant Level 1                         | YES   |                |
|        |                                      | Livestock Production (1)*  |  |   |                |
|        |                                      | Veterinary Medical Applications (1)* OR Equine Science (0.5) AND Small Animal Management (0.5)         |  |   |                |
|        |                                      | Advanced Animal Science (1)* OR Practicum in Agriculture, Food, and Natural Resources (2)*             |  |   |                |
|        | Plant Science                        | Principles of Agriculture, Food and Natural Resources (1)  | Texas State Floral Association Floral Skills Knowledge Based   | YES [TSFA Level 1 Floral Certification]   |                |
|        |                                      | Floral Design (1)*   |  |   |                |
|        |                                      | Landscape Design and Management (0.5) AND Turf Grass Management (0.5)                                  |  |   |                |
|        |                                      | Horticultural Science (1) OR Practicum in Agriculture, Food, and Natural Resources (2)*                |  |   |                |
|        | Engineering                          | Principles of Applied Engineering (1)  | Autodesk Certified Professional or User AutoCAD                | YES   |                |
|        |                                      | Engineering Design and Presentation I (1)*   |  |   |                |
|        |                                      | Engineering Science (1)*   |  |   |                |
|        |                                      | Engineering Design and Presentation II (2)* OR Practicum in STEM (2)*                                  |  |   |                |
|        | Programming and Software Development | AP Computer Science Principles (1)   |  | Certified Entry-Level Python Programmer (PCEP)  | (DSA needed)   |
|        |                                      | Computer Science I PREIB (1)   |  |   |                |
|        |                                      | IB Computer Science Standard Level, Year 1 (1)*  |  |   |                |
|        |                                      | IB Computer Science Standard Level, Year 1 (1)*  |  |   |                |
|        | Exercise Science and Wellness        | Principles of Exercise Science and Wellness (1)^   |  | Certified Personal Trainer, Pre-Professional Certification in Nutrition, Food, Wellness   | (Cold Start)   |
|        |                                      | Kinesiology I (1)^   |  |   |                |
|        |                                      | Kinesiology II (1)^  |  |   |                |
|        |                                      | Practicum in Entrepreneurship (2)*^  |  |   |                |
|        | Family and Community Services        | Principles of Human Services (1)   | OSHA 30 General  | Child Development Associate   |                |
|        |                                      | Human Growth and Development (1)   |  |   |                |
|        |                                      | Child Development (1)  |  |   |                |
|        |                                      | Family and Community Services (1)* OR Practicum in Human Services (2)*                                 |  |   |                |

| Campus  | Program of Study                   | 2022-2023 CTE Course Sequence (credit value)               | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation |
|---------|------------------------------------|--|---|---|----------------|
| LIBERTY | Graphic Design and Multimedia Arts | Principles of Arts, A/V Technology, and Communications (1) |   | Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator |                |
|         |                                    | Graphic Design and Illustration I (1)                      |   |   |                |
|         |                                    | Graphic Design and Illustration II (1)*                    |   |   |                |

| Campus       | Program of Study   | 2022-2023 CTE Course Sequence (credit value) | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23                            | Implementation |
|--------------|--------------------|--|---|---|----------------|
| LONG ACADEMY | Biomedical Science | Principles of Biosciences (1)                |   | Medical Laboratory Assistant, Medical Laboratory Technician | (Cold Start)   |
|              |                    | Biotechnology I (1)                          |   |   |                |
|              |                    | Pathophysiology (1)*                         |   |   |                |
|              |                    | NONE   |   |   |                |



| Campus  | Program of Study                               | 2022-2023 CTE Course Sequence (credit value)               | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation |
|---------|--|--|---|---|----------------|
| MADISON | Networking Systems                             | Principles of Information Technology (1)                   |   | CompTIA A+/Network+/Server+, Cisco CCNA *(200-301), Cisco 100-490 RSTECH                                      | (DSA needed)   |
|         |  | Internetworking Technologies I (1)^                        |   |   |                |
|         |  | Internetworking Technologies II (1) *^                     |   |   |                |
|         |  | Career Preparation I (2)*                                  |   |   |                |
|         | Automotive                                     | Principles of Transportation Systems (1)                   |   | ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling                          |                |
|         |  | Energy and Power of Transportation Systems (1)*            |   |   |                |
|         |  | Automotive Technology I: Maintenance and Light Repair (2)* |   |   |                |
|         |  | Automotive Technology II: Automotive Service (2)*          |   |   |                |
|         | Animal Science                                 | Principles of Agriculture, Food and Natural Resources (1)  |   | Certified Veterinary Assistant Level 1, Elanco Fundamentals of Animal Science, Licensed Veterinary Technician |                |
|         |  | Livestock Production (1)*                                  |   |   |                |
|         |  | Veterinary Medical Applications (1)*                       |   |   |                |
|         |  | Advanced Animal Science (1)*                               |   |   |                |
|         | Advanced Manufacturing and Machinery Mechanics | Principles of Applied Engineering (1)                      |   | OSHA 30 General*  |                |
|         |  | Robotics I (1)   |   |   |                |
|         |  | Engineering Design and Presentation I (1)*                 |   |   |                |
|         |  | Robotics II (1)*   |   |   |                |
|         | Welding  | Introduction to Welding (1)                                |   | NCCER Core Level I, NCCER Welding Level I   |                |
|         |  | Welding I (2)  |   |   |                |
|         |  | Welding II (2)*  |   |   |                |
|         |  | Practicum in Manufacturing (2)*                            |   |   |                |
|         | Engineering                                    | Principles of Applied Engineering (1)                      |   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate*           |                |
|         |  | Engineering Design and Presentation I (1)*                 |   |   |                |
|         |  | Engineering Design and Presentation II (2)*                |   |   |                |
|         |  | Engineering Design and Problem Solving (1)*                |   |   |                |
|         | Healthcare Diagnostics                         | Principles of Health Science (1)                           |   | Certified Clinical Medical Assistant  |                |
|         |  | Health Science Theory (1)*                                 |   |   |                |
|         |  | Anatomy and Physiology (1)*                                |   |   |                |
|         |  | Practicum in Health Science (2)*                           |   |   |                |
|         | Cosmetology                                    | Introduction to Cosmetology (1)                            |   | Cosmetology Operator License  |                |
|         |  | Principles of Cosmetology Design and Color (1)             |   |   |                |
|         |  | Cosmetology I (2)*   |   |   |                |
|         |  | Cosmetology II (2)*  |   |   |                |

| Campus            | Program of Study                     | 2022-2023 CTE Course Sequence (credit value) | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23                               | Implementation |
|-------------------|--------------------------------------|--|---|--|----------------|
| MICKEY LELAND CPA | Graphic Design and Multimedia Arts   | Digital Media (1)                            | Adobe Certified Associate Photoshop               | Adobe Certified Professional in Graphic Design Using Photoshop |                |
|                   |                                      | Digital Design and Media Production (1)      |   |  |                |
|                   |                                      | Career Preparation I (2)*                    |   |  |                |
|                   |                                      | NONE   |   |  |                |
|                   | Programming and Software Development | Fundamentals of Computer Science (1)         |   | Certified Entry-Level Python Programmer (PCEP)                 | (DSA needed)   |
|                   |                                      | AP Computer Science Principles (1)           |   |  |                |
|                   |                                      | AP Computer Science A (1)*                   |   |  |                |
|                   |                                      | Career Preparation I (2) *                   |   |  |                |

| Campus                              | Program of Study                     | 2022-2023 CTE Course Sequence (credit value) | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23                   | Implementation |
|-------------------------------------|--------------------------------------|--|---|--|----------------|
| MIDDLE COLLEGE HS at<br>HCC GULFTON | Programming and Software Development | Fundamentals of Computer Science (1)         | MOS Word  | NO, Certified Entry-Level Python Programmer (PCEP) | (DSA needed)   |
|                                     |                                      | Computer Science I (1)                       |   |  |                |
|                                     |                                      | Computer Science II (1)*                     |   |  |                |
|                                     |                                      | Mobile Application Development (1)*          |   |  |                |

| Campus                            | Program of Study    | 2022-2023 CTE Course Sequence (credit value)       | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23            | Implementation |
|-----------------------------------|---------------------|--|---|---|----------------|
| MIDDLE COLLEGE HS at<br>HCC FRAGA | Marketing and Sales | Principles of Business, Marketing, and Finance (1) | MOS Word, MOS Word Expert                         | NO, NO, Entrepreneurship and Small Business |                |
|                                   |                     | Virtual Business (0.5) AND Advertising (0.5)*      |   |   |                |
|                                   |                     | Retail Management (1)*^ AND Marketing (1)          |   |   |                |
|                                   |                     | Career Preparation I (2)*                          |   |   |                |

| Campus | Program of Study       | 2022-2023 CTE Course Sequence (credit value)                      | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23   | Implementation |
|--------|------------------------|---|---|--|----------------|
| MILBY  | Carpentry              | CTE Options on Home Campus  | NCCER Core Level I, OSHA 30 Construction*         | YES, NO* (NCCER Carpentry Level I)   |                |
|        |                        | CTE Options on Home Campus  |   |  |                |
|        |                        | Construction Technology I (2)                                     |   |  |                |
|        |                        | Construction Technology II (2)*                                   |   |  |                |
|        | HVAC and Sheet Metal   | Principles of Construction (1)                                    |   | NCCER Core Level I, NCCER HVAC Level I, Refrigerant Handling EPA 608                                       |                |
|        |                        | HVAC and Refrigeration Technology I (1)                           |   |  |                |
|        |                        | HVAC and Refrigeration I Technology II (2)*                       |   |  |                |
|        |                        | Introduction to Culinary Arts (1)                                 |   |  |                |
|        | Culinary Arts          | Foundations of Restaurant Management (1)                          | ServSafe Manager                                  | ServSafe Manager   |                |
|        |                        | Culinary Arts (2)   |   |  |                |
|        |                        | Advanced Culinary Arts (2)*                                       |   |  |                |
|        |                        | Introduction to Welding (1)                                       |   |  |                |
|        | Welding                | Welding I (2)   | AWE Sense Welding Level I                         | AWE Sense Welding Level I  |                |
|        |                        | Welding II (2)*   |   |  |                |
|        |                        | NONE  |   |  |                |
|        |                        | Fundamentals of Computer Science (1)                              |   |  |                |
|        | Cybersecurity          | AP Computer Science Principles (1)                                | MTA Introduction to Programming Using Python      | Comp TIA A+/Network+/Security+   | (DSA needed)   |
|        |                        | Computer Science I (1)  |   |  |                |
|        |                        | Cybersecurity Capstone (2)*^                                      |   |  |                |
|        |                        | Principles of Applied Engineering (1)                             |   |  |                |
|        | Engineering            | Engineering Design and Presentation I (1)*                        | OSHA 30 General                                   | Autodesk Associate (Certified User) Inventor for Mechanical Design, <u>Certified SOLIDWORKS Associate*</u> |                |
|        |                        | Engineering Design and Presentation II (2)*                       |   |  |                |
|        |                        | Engineering Design and Problem Solving (1)*                       |   |  |                |
|        |                        | Principles of Health Science (1)                                  |   |  |                |
|        | Healthcare Diagnostics | Medical Terminology (1)   | Clinical Medical Assistant                        | YES, Pharmacy Technician   |                |
|        |                        | Health Science Theory with Clinical (2)*                          |   |  |                |
|        |                        | Practicum in Health Science (2)*                                  |   |  |                |
|        |                        | Introduction to Cosmetology (1)                                   |   |  |                |
|        | Cosmetology            | Principles of Cosmetology Design and Color Theory (1)             |   | Cosmetology Operator License   |                |
|        |                        | Cosmetology I (2) * OR Nail Care, Enhancements, and Spa Svcs (1)^ |   |  |                |
|        |                        | Cosmetology II (2)*   |   |  |                |
|        |                        |   |   |  |                |

| Campus                  | Program of Study   | 2022-2023 CTE Course Sequence (credit value) | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23      | Implementation |
|-------------------------|--------------------|--|---|---------------------------------------|----------------|
| MOUNT CARMEL<br>ACADEMY | Health Informatics | Medical Terminology (1)                      |   | Medical Billing and Coding Specialist |                |
|                         |                    | Business Information Management I (1)        |   |                                       |                |
|                         |                    | Health Informatics (1)*                      |   |                                       |                |
|                         |                    | NONE   |   |                                       |                |

| Campus             | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                      | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23 | Implementation |
|--------------------|--------------------------------------|---|---|----------------------------------|----------------|
| NORTH HOUSTON ECHS | Entrepreneurship                     | Principles of Business, Marketing and Finance (1)                 | Entrepreneurship and Small Business, MOS Word     | YES, NO                          |                |
|                    |                                      | Entrepreneurship I (1)  |   |                                  |                |
|                    |                                      | Entrepreneurship II (1)^  |   |                                  |                |
|                    |                                      | Project Based Research (1)* OR Practicum in Entrepreneurship (2)* |   |                                  |                |
|                    | Government and Public Administration | Principles of Government and Public Administration (1)            |   | NONE                             | ALTERNATE CCMR |
|                    |                                      | Political Science I (1)   |   |                                  |                |
|                    |                                      | Dimensions of Diplomacy (1)*^                                     |   |                                  |                |
|                    |                                      | TBD   |   |                                  |                |

| Campus       | Program of Study           | 2022-2023 CTE Course Sequence (credit value)                   | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23  | Implementation |
|--------------|----------------------------|--|--|---|----------------|
| NORTH FOREST | HVAC and Sheet Metal (DCH) | Principles of Construction (1)                                 | Refrigerant Handling EPA 608 [25 current seniors]  | YES (NCCER Core Level 1)  |                |
|              |                            | HVAC and Refrigeration Technology I (1)                        |  |   |                |
|              |                            | HVAC and Refrigeration Technology II (2)*                      |  |   |                |
|              |                            | Practicum in Construction Technology (2)*                      |  |   |                |
|              | Networking Systems         | Principles of Information Technology (1)                       | MOS Word/Excel   | NO (Cisco 100-490/200-301, CompTIA Network+)  | (DSA needed)   |
|              |                            | Internetworking Technologies I (1)                             |  |   |                |
|              |                            | Internetworking Technologies II (1)*                           |  |   |                |
|              |                            | Career Preparation I (2)*                                      |  |   |                |
|              | Automotive                 | Principles of Transportation Systems (1)                       | ASE Maintenance Light and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling | YES   |                |
|              |                            | Energy, Power and Transportation Systems (1)                   |  |   |                |
|              |                            | Automotive Basics (1)  |  |   |                |
|              |                            | Career Preparation I (2)*                                      |  |   |                |
|              | Animal Science             | Principles of Agriculture, Food and Natural Resources (1)      | OSHA 30 General, Certified Veterinary Assistant  | (NO) YES [Elanco Animal Science Cert]   |                |
|              |                            | Livestock Production (1)*                                      |  |   |                |
|              |                            | Veterinary Medical Applications (1)*                           |  |   |                |
|              |                            | Practicum in Agriculture, Food and Natural Resources (2)*      |  |   |                |
|              | Emergency Services         | Principles of Law, Public Safety, Corrections and Security (1) | OSHA 30 General  | NO (OSHA Hazardous Waste Operations and Emergency Response*, IAED Emergency Telecommunicator) |                |
|              |                            | Disaster Response (1)^   |  |   |                |
|              |                            | Firefighter I (2)*   |  |   |                |
|              |                            | Anatomy and Physiology (1)*                                    |  |   |                |



| Campus    | Program of Study                   | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22         | Program of Study Alignment 22/23   | Implementation |
|-----------|------------------------------------|---|---|--|----------------|
| NORTHSIDE | Digital Communications             | Principles of Arts, A/V Technology And Communications (1)                           |   | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro, Adobe Certified Professional in Visual Design Using Photoshop, |                |
|           |                                    | Audio/ Video Production I (1)   |   |  |                |
|           |                                    | Audio/ Video Production II (1)*   |   |  |                |
|           |                                    | Practicum in Audio/ Video Production (2)*   |   |  |                |
|           | Graphic Design and Multimedia Arts | Principles of Arts, A/V Technology And Communications (1)                           | Adobe Certified Associate Photoshop                       | YES  |                |
|           |                                    | Digital Media (1) OR Graphic Design and Illustration I (1)                          |   |  |                |
|           |                                    | Graphic Design and Illust. I DCH (2) OR Graphic Design and Illust. II (2)           |   |  |                |
|           |                                    | Graphic Design and Illust. II DCH (2)* OR Practicum in Audio/ Video Production (2)* |   |  |                |
|           | Culinary Arts                      | Principles of Hospitality and Tourism (1)   |   | ServSafe Manager   |                |
|           |                                    | Introduction to Culinary Arts (1)   |   |  |                |
|           |                                    | Culinary Arts (2)   |   |  |                |
|           |                                    | Practicum in Culinary Arts (2)*   |   |  |                |
|           | Lodging and Resort Management      | Principles of Hospitality and Tourism (1)   | Certified Hospitality and Tourism Management Professional | YES  |                |
|           |                                    | Hotel Management (1)  |   |  |                |
|           |                                    | Hospitality Services (2)*   |   |  |                |
|           |                                    | Practicum in Hospitality Services (2)*  |   |  |                |
|           | Cybersecurity                      | Principles of Information Technology (1)  |   | Comp TIA A+/Network+/Security+   | (DSA needed)   |
|           |                                    | Internetworking Technologies (1)^   |   |  |                |
|           |                                    | Networking (1)*   |   |  |                |
|           |                                    | Practicum in Information Technology (2)*  |   |  |                |

| Campus      | Program of Study      | 2022-2023 CTE Course Sequence (credit value)      | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23                                       | Implementation |
|-------------|-----------------------|---|--|--|----------------|
| SCARBOROUGH | HVAC and Sheet Metal  | Principles of Construction (1)                    | Refrigerant Handling EPA 608, OSHA 30 Construction | YES, NO, NCCER Core Level I, NCCER HVAC Level I                        |                |
|             |                       | HVAC and Refrigeration Technology I (1)           |  |  |                |
|             |                       | HVAC and Refrigeration Technology II (2)*         |  |  |                |
|             |                       | Practicum in Construction Technology (2)*         |  |  |                |
|             | Business Management   | Principles of Business, Marketing and Finance (1) |  | MOS Word Expert, MOS Excel Expert, Entrepreneurship and Small Business |                |
|             |                       | Business Information Management I (1)             |  |  |                |
|             |                       | Business Management (1)*                          |  |  |                |
|             |                       | Practicum in Business Management (2)*             |  |  |                |
|             | Teaching and Training | Principles of Education and Training (1)          | Educational Aide I                                 | YES  |                |
|             |                       | Human Growth and Development (1)                  |  |  |                |
|             |                       | Instructional Practices (2)*                      |  |  |                |
|             |                       | Practicum in Education and Training (2)*          |  |  |                |

| Campus     | Program of Study                   | 2022-2023 CTE Course Sequence (credit value)                                    | Industry Based Certification Types Earned - 21/22      | Program of Study Alignment 22/23   | Implementation |
|------------|------------------------------------|---|--|--|----------------|
| SHARPSTOWN | Plant Science                      | Principles of Agriculture, Food, and Natural Resources (1)                      |  | TSFA Level 1 Floral Certification  |                |
|            |                                    | Horticultural Science (1)*  |  |  |                |
|            |                                    | Floral Design I (1)*  |  |  |                |
|            |                                    | Advanced Floral Design (1)*^ OR Advanced Plant and Soil Science (1)*            |  |  |                |
|            | Graphic Design and Multimedia Arts | Digital Media (1) OR Video Game Design (1)                                      |  | Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator  |                |
|            |                                    | Animation I (1)   |  |  |                |
|            |                                    | Animation II (1)*   |  |  |                |
|            |                                    | Practicum in Audio/Video Production (2)*  |  |  |                |
|            | Digital Communications             | Principles of Arts, A/V Technology and Communications (1)                       |  | Adobe Certified Professional in Digital Video Using Adobe Premiere Pro, Adobe Certified Professional in Visual Design Using Photoshop, |                |
|            |                                    | Audio/Video Production I (1)  |  |  |                |
|            |                                    | Audio/Video Production II (1)*  |  |  |                |
|            |                                    | Practicum in Audio/Video Production (2)* OR Practicum in Entrepreneurship (2)*^ |  |  |                |
|            | Healthcare Diagnostics             | Principles of Health Science (1)  | Clinical Medical Assistant, Medical Billing and Coding | YES, NO  |                |
|            |                                    | Medical Terminology (1)   |  |  |                |
|            |                                    | Health Science Theory (1)*  |  |  |                |
|            |                                    | Anatomy and Physiology (1)*   |  |  |                |

| Campus                      | Program of Study                               | 2022-2023 CTE Course Sequence (credit value)             | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23                                     | Implementation |
|-----------------------------|--|--|---|--|----------------|
| SHARPSTOWN<br>INTERNATIONAL | Graphic Design and Multimedia Arts             | Principles of Arts, AV Technology and Communications (1) | Adobe Certified Associate Illustrator             | YES [Adobe Certified Professional in Graphic Design Using Photoshop] |                |
|                             |  | Graphic Design and Illustration I (1)                    |   |  |                |
|                             |  | Graphic Design and Illustration II (1)*                  |   |  |                |
|                             |  | Digital Art and Animation (1)*                           |   |  |                |
|                             | Entrepreneurship                               | Business Information Management I (1)                    |   | Entrepreneurship and Small Business                                  |                |
|                             |  | Entrepreneurship I (1)                                   |   |  |                |
|                             |  | Entrepreneurship II (1)*                                 |   |  |                |
|                             |  | Project-Based Research (1)*                              |   |  |                |
|                             | Advanced Manufacturing and Machinery Mechanics | Principles of Applied Engineering (1)                    |   | OSHA 30 General*   |                |
|                             |  | Manufacturing Engineering Technology I (1)               |   |  |                |
|                             |  | Engineering Design and Presentation I (1)*               |   |  |                |
|                             |  | Career Preparation I (2)*                                |   |  |                |
|                             | Programming and Software Development           | Computer Science I (1)                                   |   | Certified Entry-Level Python Programmer (PCEP)                       | (DSA needed)   |
|                             |  | AP Computer Science Principles (1)                       |   |  |                |
|                             |  | IB Computer Science SL1 (1)*                             |   |  |                |
|                             |  | IB Computer Science HL1 (1)*                             |   |  |                |

| Campus                    | Program of Study    | 2022-2023 CTE Course Sequence (credit value)    | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation |
|---------------------------|---------------------|---|---|---|----------------|
| SOUTH EARLY COLLEGE<br>HS | Business Management | Business Information Management I (1)           |   | MOS Word Expert, MOS Excel Expert, Entrepreneurship and Small Business                              |                |
|                           |                     | Business Information Management II (1)          |   |   |                |
|                           |                     | Business Management (1)*                        |   |   |                |
|                           |                     | Statistics and Business Decision Making (1)*    |   |   |                |
|                           | Engineering         | Engineering Essentials (1) (PLTW)^              |   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate* |                |
|                           |                     | Introduction to Engineering Design (PLTW) (1)^  |   |   |                |
|                           |                     | Engineering Science (1)*                        |   |   |                |
|                           |                     | Civil Engineering and Architecture (PLTW) (1)*^ |   |   |                |

| Campus   | Program of Study     | 2022-2023 CTE Course Sequence (credit value)                   | Industry Based Certification Types Earned - 21/22                                | Program of Study Alignment 22/23                            | Implementation   |
|----------|----------------------|--|--|---|------------------|
| STERLING | Business Management  | Business Information Management I (1)                          | MOS Word, MOS Word Expert, MOS Excel, MOS Excel Expert                           | NO*, YES, NO*, YES  |                  |
|          |                      | Business Information Management II (1)                         |  |   |                  |
|          |                      | Business Management (1)*                                       |  |   |                  |
|          |                      | Practicum in Business Management (2)* OR Career Prep I (2)*    |  |   |                  |
|          | Welding              | Introduction to Welding (1)                                    | NCCER Welding Level I, NCCER Core Level I  | YES   |                  |
|          |                      | Welding I (2)  |  |   |                  |
|          |                      | Welding II (2)*  |  |   |                  |
|          |                      | Practicum in Manufacturing (2)*                                |  |   |                  |
|          | Automotive           | Principles of Transportation Systems (1)                       | ASE Painting and Refinishing Entry Level, ASE Refrigerant Recovery and Recycling | YES   |                  |
|          |                      | Automotive Technology I: Maintenance and Light Repair (2)*     |  |   |                  |
|          |                      | Automotive Technology II: Automotive Services (2)*             |  |   |                  |
|          |                      | Practicum in Transportation Systems (2)*                       |  |   |                  |
|          | Aviation Maintenance | Introduction to Aircraft Technology (1)                        | FAA 107 Remote Drone Pilot   | NO, Aerospace Manufacturing Certification, OSHA 30 General* | (Cold Start AMC) |
|          |                      | Aircraft Airframe Technology (2)*                              |  |   |                  |
|          |                      | Aircraft Powerplant Technology (2)*                            |  |   |                  |
|          |                      | Practicum in Transportation Systems (2)*                       |  |   |                  |
|          | Law Enforcement      | Principles of Law, Public Safety, Corrections and Security (1) | Non-commissioned Security Officer Level II                                       | YES   |                  |
|          |                      | Law Enforcement I (1)  |  |   |                  |
|          |                      | Law Enforcement II (1)*  |  |   |                  |
|          |                      | Practicum in Law, Public Safety, Corrections and Security (2)* |  |   |                  |

| Campus  | Program of Study                            | 2022-2023 CTE Course Sequence (credit value)                       | Industry Based Certification Types Earned - 21/22      | Program of Study Alignment 22/23  | Implementation |
|---------|---|--|--|---|----------------|
| WALTRIP | Graphic Design and Multimedia Arts          | Digital Media (1)  | Adobe Certified Associate Photoshop                    | YES   |                |
|         |   | Graphic Design and Illustration I (1)                              |  |   |                |
|         |   | Graphic Design and Illustration II (1)*                            |  |   |                |
|         |   | Digital Art and Animation (1)*                                     |  |   |                |
|         | Digital Communications                      | Principles of Arts, AV Technology and Communications (1)           | Adobe Certified Associate Premiere Pro                 | YES   |                |
|         |   | Audio/Video Production I (1)                                       |  |   |                |
|         |   | Audio/Video Production II (1)*                                     |  |   |                |
|         |   | Practicum in Audio/Video Production (2)*                           |  |   |                |
|         | Business Management                         | Principles of Business, Marketing, and Finance (1)                 | MOS Word, MOS Word Expert, MOS Excel, MOS Excel Expert | NO*, YES, NO*, YES  |                |
|         |   | Business Information Management I (1)                              |  |   |                |
|         |   | Business Information Management II (1)                             |  |   |                |
|         |   | Practicum in Business Management (2)* OR Career Preparation I (2)* |  |   |                |
|         | Automotive                                  | Principles of Transportation Systems (1)                           | ASE Refrigerant Recovery and Recycling                 | ASE Maintenance Light and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling          |                |
|         |   | Energy and Power of Transportation Systems (1) *                   |  |   |                |
|         |   | Automotive Technology I: Maintenance and Light Repair (2) *        |  |   |                |
|         |   | Principles of Information Technology (1)                           |  |   |                |
|         | Information Technology Support and Services | Geographic Information Systems (1)^ *                              |  | CompTIA A+, CompTIA Fundamentals+   | (DSA needed)   |
|         |   | Raster Based Geographic Information Systems (1)^                   |  |   |                |
|         |   | Practicum in Information Technology (2) *                          |  |   |                |
|         |   | Principles of Applied Engineering (1)                              |  |   |                |
|         | Engineering                                 | Manufacturing Engineering Technology (1)                           | Certified SOLIDWORKS Associate                         | Autodesk Associate (Certified User) Inventor for Mechanical Design, Certified SOLIDWORKS Associate* |                |
|         |   | Engineering Design and Presentation I (1) *                        |  |   |                |
|         |   | Practicum in Science, Technology, Engineering and Mathematics (2)* |  |   |                |
|         |   | Principles of Health Science (1)                                   |  |   |                |
|         | Healthcare Therapeutics                     | Medical Terminology (1)  |  | Certified Clinical Medical Assistant  |                |
|         |   | Health Science Theory (1)*   |  |   |                |
|         |   | Pharmacology (1) *   |  |   |                |
|         |   |  |  |   |                |

| Campus     | Program of Study   | 2022-2023 CTE Course Sequence (credit value)              | Industry Based Certification Types Earned - 21/22               | Program of Study Alignment 22/23                                    | Implementation |
|------------|--------------------|---|---|---|----------------|
| WASHINGTON | Animal Science     | Principles of Agriculture, Food and Natural Resources (1) | NONE  | Certified Veterinary Assistant, Elanco Animal Science Certification |                |
|            |                    | Livestock Production (1)*                                 |   |   |                |
|            |                    | Veterinary Medical Applications (1)*                      |   |   |                |
|            |                    | Advanced Animal Science (1)*                              |   |   |                |
|            | Carpentry          | Principles of Construction (1)                            | NCCER Core Level I  | YES   |                |
|            |                    | Construction Technology I (2)                             |   |   |                |
|            |                    | Construction Technology II (2)*                           |   |   |                |
|            |                    | Practicum in Construction Technology (2)*                 |   |   |                |
|            | Networking Systems | Principles of Information Technology (1)                  | MTA Networking Fundamentals                                     | NO (Cisco 100-490/200-301, CompTIA Network+)                        | (DSA needed)   |
|            |                    | Computer Maintenance (1)                                  |   |   |                |
|            |                    | Networking (1)  |   |   |                |
|            |                    | Advanced Cloud Computing (1)**                            |   |   |                |
|            | Engineering        | Principles of Applied Engineering (1)                     | Certified SOLIDWORKS Associate, FAA Part 107 Remote Drone Pilot | YES, NO   |                |
|            |                    | Engineering Design and Presentation I (1)*                |   |   |                |
|            |                    | Engineering Design and Problem Solving (1)*               |   |   |                |
|            |                    | Practicum in STEM (2)*                                    |   |   |                |



| Campus   | Program of Study       | 2022-2023 CTE Course Sequence (credit value)  | Industry Based Certification Types Earned - 21/22  | Program of Study Alignment 22/23   | Implementation |
|----------|------------------------|---|--|--|----------------|
| WESTBURY | Business Management    | Principles of Business Marketing and Finance (1)  | MOS Word, MOS Excel  | YES*, YES*, MOS Word Expert, MOS Excel Expert  |                |
|          |                        | Business Information Management I (1)   |  |  |                |
|          |                        | Business Information Management II (1)  |  |  |                |
|          |                        | Practicum in Business Management (2)* OR Business Management (1)*                             |  |  |                |
|          | Web Development        | Principles of Information Technology (1)  | MTA Introduction to Programming Using HTML and CSS, Unity Certified Programmer   | (discontinued), NOCTI Web Design, CWMADA   | (Cold Start)   |
|          |                        | Web Design (1)*   |  |  |                |
|          |                        | Web Game Development (1)*   |  |  |                |
|          |                        | Project Based Research (1)*   |  |  |                |
|          | Automotive             | Principles of Transportation Systems (1)  | ASE Brakes Entry Level, ASE Electrical/Electronic Systems Entry Level, ASE HVAC Entry Level, ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling, ASE Suspension and Steering Entry Level | ASE Brakes Entry Level, ASE Electrical/Electronic Systems Entry Level, ASE HVAC Entry Level, ASE Maintenance and Light Repair Entry Level, ASE Refrigerant Recovery and Recycling, ASE Suspension and Steering Entry Level |                |
|          |                        | Automotive Basics (1)   |  |  |                |
|          |                        | Automotive Technology I: Maintenance and Light Repair (2)*                                    |  |  |                |
|          |                        | Automotive Technology II: Automotive Service (2)* OR Practicum in Transportation Systems (2)* |  |  |                |
|          | Engineering            | Principles of Applied Engineering (1)   |  | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD  |                |
|          |                        | Introduction to Engineering and Design PLTW (1)^  |  |  |                |
|          |                        | Computer Integrated Manufacturing PLTW (1)^ *   |  |  |                |
|          |                        | Engineering Design and Problem Solving (1)*   |  |  |                |
|          | Emergency Services     | Principles of Law, Public Safety, Corrections, and Security (1)                               |  | OSHA Hazardous Waste and Emergency Response*   |                |
|          |                        | Disaster Response (1)^  |  |  |                |
|          |                        | Firefighter I (2)*  |  |  |                |
|          |                        | Emergency Medical Technician - Basic (2)^ *   |  |  |                |
|          | Healthcare Diagnostics | Principles of Health Science (1)  | Clinical Medical Assistant   | Clinical Medical Assistant   |                |
|          |                        | Health Science Theory (1)*  |  |  |                |
|          |                        | Anatomy and Physiology (1) *  |  |  |                |
|          |                        | Practicum in Health Science (2)* OR Pathophysiology (1)*                                      |  |  |                |

| Campus   | Program of Study                       | 2022-2023 CTE Course Sequence (credit value)                               | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation      |
|----------|--|--|---|---|---------------------|
| WESTSIDE | Environmental and Natural Resources    | Principles of Agriculture, Food, and Natural Resources (1)                 |   | Water Operators - Class D, Natural Resources Systems  | (DSA needed)        |
|          |  | Range Ecology and Management (1)*  |   |   |                     |
|          |  | Project Based Research (1)*  |   |   |                     |
|          |  | Scientific Research and Design (1)*  |   |   |                     |
|          | Graphic Design and Multimedia Arts (1) | Principles of Arts, A/V Tech and Communications (1)                        |   | Adobe Certified Professional in Visual Effects Using After Effects  |                     |
|          |  | Animation I (1)  |   |   |                     |
|          |  | Animation II w/Lab (2)*  |   |   |                     |
|          |  | Practicum in Animation (2)*  |   |   |                     |
|          | Graphic Design and Multimedia Arts (2) | Principles of Arts, A/V Tech and Communications (1)                        |   | Adobe Certified Professional in Visual Design Using Photoshop   |                     |
|          |  | Graphic Design and Illustration I (1)                                      |   |   |                     |
|          |  | Graphic Design and Illustration II (1)*                                    |   |   |                     |
|          |  | Practicum in Graphic Design and Illustration (2)*                          |   |   |                     |
|          | Digital Communications                 | Principles of Arts, A/V Tech and Communications (1)                        |   | Adobe Certified Associate Premiere Pro  |                     |
|          |  | Audio/Video Production I (1)   |   |   |                     |
|          |  | Audio/Video Production II (1)*   |   |   |                     |
|          |  | Practicum in Audio/Video Production (2)*                                   |   |   |                     |
|          | Accounting and Financial Services      | Principles of Business Marketing and Finance (1)                           | Quickbooks Certified User                         | YES (Intuit Quickbooks Certified User)  |                     |
|          |  | Financial Mathematics (1)* OR<br>Business Information Management (1)       |   |   |                     |
|          |  | Accounting I (1)   |   |   |                     |
|          |  | Practicum in Business Management (2)* OR Career Preparation I (2)*         |   |   |                     |
|          | Business Management                    | Principles of Business, Marketing and Finance (1)                          | MOS Word  | YES*, MOS Word Expert   |                     |
|          |  | Business Information Management I (1)                                      |   |   |                     |
|          |  | Business Law (1) OR<br>Global Business (0.5) * AND Virtual Business (0.5)  |   |   |                     |
|          |  | Practicum in Business Management (2)* OR<br>Business Management (1)*       |   |   |                     |
|          | Culinary Arts                          | Introduction to Culinary Arts (1)  |   | ServSafe Manager  |                     |
|          |  | Culinary Arts (2)  |   |   |                     |
|          |  | Advanced Culinary Arts (2)*  |   |   |                     |
|          |  | Practicum in Culinary Arts (2)*  |   |   |                     |
|          | Programming and Software Development   | Fundamentals of Computer Science (1)                                       | MTA Introduction to Programming Using Java        | C++ Certified Associate Programmer, Certified Entry-Level Python Programmer, Certified Professional Programmer  | (DSA needed Python) |
|          |  | Computer Science I (1)   |   |   |                     |
|          |  | Computer Science II (1)* OR AP Computer Science Principles (1)             |   |   |                     |
|          |  | Practicum in Information Technology (2)* OR<br>AP Computer Science A (2) * |   |   |                     |
|          | Engineering (PLTW)                     | Introduction to Engineering Design (1) (PLTW)^                             |   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD |                     |
|          |  | Computer Integrated Manufacturing (1) (PLTW)^ *                            |   |   |                     |
|          |  | Digital Electronics (1)*   |   |   |                     |
|          |  | Engineering Design and Problem Solving (1)*                                |   |   |                     |
|          | Legal Studies                          | Political Science I (1)  |   | NONE  | ALTERNATE CCMR      |
|          |  | Political Science II (1)*  |   |   |                     |
|          |  | Business Law (1)   |   |   |                     |
|          |  | Project Based Research (1)*  |   |   |                     |
|          | Healthcare Diagnostics                 | Principles of Health Science (1)   | Clinical Medical Assistant, Pharmacy Technician   | YES, YES  |                     |
|          |  | Medical Terminology (1)  |   |   |                     |
|          |  | Anatomy and Physiology (1)* AND Health Science Theory (1)*                 |   |   |                     |
|          |  | Practicum in Health Science (2)* OR<br>Pharmacology (1)*                   |   |   |                     |

| Campus   | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                     | Industry Based Certification Types Earned - 21/22   | Program of Study Alignment 22/23                                   | Implementation |
|----------|--------------------------------------|--|---|--|----------------|
| WHEATLEY | Graphic Design and Multimedia Arts   | Principles of Arts, A/V Technology, and Communications (1)       | NONE  | Adobe Certified Professional in Visual Effects Using After Effects |                |
|          |                                      | Animation I (1)  |   |  |                |
|          |                                      | Animation II (1)*  |   |  |                |
|          |                                      | Career Preparation I (2)*  |   |  |                |
|          | Culinary Arts                        | Principles of Hospitality and Tourism (1)                        | ServSafe Manager  | YES  |                |
|          |                                      | Introduction to Culinary Arts (1)                                |   |  |                |
|          |                                      | Culinary Arts (2)  |   |  |                |
|          |                                      | Advanced Culinary Arts (2)*                                      |   |  |                |
|          | Web Development                      | Principles of Information Technology (1)                         | NONE  | NOCTI Web Design, CWMADA   | (DSA needed)   |
|          |                                      | Project Based Research (1)*                                      |   |  |                |
|          |                                      | Career Preparation I (2)*  |   |  |                |
|          |                                      | (none)   |   |  |                |
|          | Automotive                           | Principles of Transportation Systems (1)                         | ASE Automotive Service Technology, ASE Brakes, ASE Electrical/Electronic Systems, ASE Engine Performance, ASE Maintenance and Light Repair, ASE Manual Drivetrain, ASE Refrigerant, ASE Suspension and Steering | YES  |                |
|          |                                      | Automotive Basics (1)  |   |  |                |
|          |                                      | Automotive Technology I: Maintenance and Light Repair (2)*       |   |  |                |
|          |                                      | Practicum in Transportation Systems (2)*                         |   |  |                |
|          | Government and Public Administration | Principles of Government and Public Administration (1)           | MOS Word  | NONE   | ALTERNATE CCMR |
|          |                                      | Dimensions of Diplomacy (1)*^                                    |   |  |                |
|          |                                      | Planning and Governance (1)*                                     |   |  |                |
|          |                                      | Prac. in Local, State and Federal Govt (2)* OR Public Mgmt. (1)* |   |  |                |
|          | Early Learning (PTECH)               | Principles of Education and Training (1)                         | NONE (phase-in)   | Child Development Associate  |                |
|          |                                      | Child Development (1)  |   |  |                |
|          |                                      | Child Guidance (2)*  |   |  |                |
|          |                                      | Career Preparation I (2)*  |   |  |                |

| Campus | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                   | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation                   |
|--------|--------------------------------------|--|---|---|----------------------------------|
| WISDOM | Carpentry                            | Principles of Construction (1)                                 | NCCER Core Level I                                | YES, NCCER Carpentry Level I  |                                  |
|        |                                      | Construction Technology I (2)                                  |   |   |                                  |
|        |                                      | Mill and Cabinetmaking Technology (2)*                         |   |   |                                  |
|        | Business Management                  | Principles of Business, Marketing and Finance (1)              | MOS Word, MOS Word Expert                         | YES*, YES   |                                  |
|        |                                      | Business Information Management I (1)                          |   |   |                                  |
|        |                                      | Business Information Management II (1)* OR                     |   |   |                                  |
|        |                                      | Human Resource Management (0.5)* AND Global Business (0.5)*    |   |   |                                  |
|        | Welding                              | Practicum in Business Management (2)*                          | NCCER Core Level I                                | YES, NCCER Welding Level I  |                                  |
|        |                                      | Introduction to Welding (1)                                    |   |   |                                  |
|        |                                      | Welding I (2)  |   |   |                                  |
|        | Engineering                          | Welding II (2)*  | OSHA 30 General                                   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD |                                  |
|        |                                      | Principles of Applied Engineering (1)                          |   |   |                                  |
|        |                                      | Engineering Design and Presentation I (1)*                     |   |   |                                  |
|        |                                      | Engineering Design and Presentation II (2)*                    |   |   |                                  |
|        | Programming and Software Development | Engineering Design and Problem Solving (1)*                    |   | C++ Certified Associate Programmer, Certified Entry-Level Python Programmer, Certified Professional Programmer  | (Cold Start / DSA needed Python) |
|        |                                      | Fundamentals of Computer Science (1)                           |   |   |                                  |
|        |                                      | Computer Science I (1)   |   |   |                                  |
|        |                                      | Computer Science II (1)*                                       |   |   |                                  |
|        | Early Learning                       | Practicum in Information Technology (2)*                       |   | Child Development Associate   |                                  |
|        |                                      | Principles of Education and Training (1)                       |   |   |                                  |
|        |                                      | Child Development (1)  |   |   |                                  |
|        |                                      | Child Guidance (2)*  |   |   |                                  |
|        | Teaching and Training                | Practicum in Education and Training (2)*                       | Educational Aide I                                | YES   |                                  |
|        |                                      | Principles of Education and Training (1)                       |   |   |                                  |
|        |                                      | Child Development (1)  |   |   |                                  |
|        |                                      | Instructional Practices (2)*                                   |   |   |                                  |
|        | Law Enforcement                      | Practicum in Education and Training (2)*                       | Non-commissioned Security Officer Level II        | YES   |                                  |
|        |                                      | Principles of Law, Public Safety, Corrections and Security (1) |   |   |                                  |
|        |                                      | Law Enforcement I (1)  |   |   |                                  |
|        |                                      | Correctional Services (1)*                                     |   |   |                                  |
|        |                                      | Federal Law Enforcement and Protective Services (1)            |   |   |                                  |

| Campus   | Program of Study              | 2022-2023 CTE Course Sequence (credit value)              | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23   | Implementation |
|----------|-------------------------------|---|---|--|----------------|
| WORTHING | Animal Science                | Principles of Agriculture, Food and Natural Resources (1) | OSHA 30 General                                   | NO [Certified Veterinary Assistant, Elanco Animal Science Certification] |                |
|          |                               | Livestock Production (1)*                                 |   |  |                |
|          |                               | Small Animal Management (0.5) OR Equine Science (0.5)     |   |  |                |
|          |                               | Practicum of Agriculture, Food and Natural Resources (2)* |   |  |                |
|          | Lodging and Resort Management | Principles of Hospitality and Tourism (1)                 |   | Certified Hospitality and Tourism Professional                           |                |
|          |                               | Hotel Management (1)                                      |   |  |                |
|          |                               | Travel and Tourism Management (1)                         |   |  |                |
|          |                               | Practicum in Hospitality Services (2)*                    |   |  |                |
|          | Web Development               | Principles of Information Technology (1)                  | MTA HTML5 App Development Fundamentals            | NOCTI Web Design, CWMADA   | (Cold Start)   |
|          |                               | Project Based Research (1)*                               |   |  |                |
|          |                               | Web Design (1)*   |   |  |                |
|          |                               | Web Game Development (1)*                                 |   |  |                |
|          | Teaching and Training         | Principles of Education and Training (1)                  | Educational Aide I                                | YES  |                |
|          |                               | Human Growth and Development (1)                          |   |  |                |
|          |                               | Instructional Practices (2)*                              |   |  |                |
|          |                               | Practicum in Education and Training (2)*                  |   |  |                |

| Campus | Program of Study                   | 2022-2023 CTE Course Sequence (credit value)                       | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation |
|--------|------------------------------------|--|---|---|----------------|
| YATES  | Graphic Design and Multimedia Arts | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Professional in Visual Design Using Photoshop             |                |
|        |                                    | Digital Media (1)  |   |   |                |
|        |                                    | Commercial Photography I (1)                                       |   |   |                |
|        |                                    | Commercial Photography II (1)*                                     |   |   |                |
|        | Digital Communications (1)         | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Associate Premiere Pro                                    |                |
|        |                                    | Professional Communications (0.5) AND Web Communications (0.5)     |   |   |                |
|        |                                    | Digital Audio Technology I (1)                                     |   |   |                |
|        |                                    | Digital Audio Technology II (1)*                                   |   |   |                |
|        | Digital Communications (2)         | Principles of Arts, Audio/Video Technology, and Communications (1) |   | Adobe Certified Associate Premiere Pro                                    |                |
|        |                                    | Audio/Video Production I (1)                                       |   |   |                |
|        |                                    | Audio/Video Production II (2)*                                     |   |   |                |
|        |                                    | Practicum in Audio/Video Production (2)*                           |   |   |                |
|        | Entrepreneurship                   | Principles of Business, Marketing, and Finance (1)                 |   | Entrepreneurship and Small Business                                       |                |
|        |                                    | Business Information Management I                                  |   |   |                |
|        |                                    | Entrepreneurship (1)   |   |   |                |
|        |                                    | Practicum in Entrepreneurship (2)*^                                |   |   |                |
|        | Distribution and Logistics         | Principles of Distribution and Logistics (1)                       |   | NCCER Core Level I, MSSC Certified Logistics Technician, OSHA 30 General* |                |
|        |                                    | Management of Transportation Systems (1)                           |   |   |                |
|        |                                    | Distribution and Logistics (1) *                                   |   |   |                |
|        |                                    | Practicum in Distribution and Logistics (2)*                       |   |   |                |

| Campus | Program of Study                     | 2022-2023 CTE Course Sequence (credit value)                   | Industry Based Certification Types Earned - 21/22 | Program of Study Alignment 22/23  | Implementation                   |
|--------|--------------------------------------|--|---|---|----------------------------------|
| YWCPA  | Biomedical Science                   | Principles of Biosciences (1)                                  |   | Medical Laboratory Assistant, Medical Laboratory Technician   | (Cold Start)                     |
|        |                                      | Biotechnology I (1)  |   |   |                                  |
|        |                                      | Biotechnology II (1)*  |   |   |                                  |
|        |                                      | Practicum in STEM (2) * OR Scientific Research and Design (1)* |   |   |                                  |
|        | Engineering                          | Principles of Applied Engineering (1)                          |   | Autodesk Associate (Certified User) Inventor for Mechanical Design, Autodesk Associate (Certified User) AutoCAD         |                                  |
|        |                                      | Engineering Design and Presentation I (1)*                     |   |   |                                  |
|        |                                      | Engineering Design and Presentation II (2)*                    |   |   |                                  |
|        |                                      | Engineering Science (1)* OR Practicum in STEM (2)*             |   |   |                                  |
|        | Programming and Software Development | AP Computer Science Principles (1)                             | MOS Word, MOS Excel                               | NO, NO [C++ Certified Associate Programmer, Certified Entry-Level Python Programmer, Certified Professional Programmer] | (Cold Start / DSA needed Python) |
|        |                                      | Computer Science I (1)*  |   |   |                                  |
|        |                                      | Game Programming and Design (1)*                               |   |   |                                  |
|        |                                      | Career Preparation I (2)*                                      |   |   |                                  |

|                                   |
|-----------------------------------|
| <b>Carpentry</b>                  |
| <b>Business Management</b>        |
| <b>Distribution and Logistics</b> |
| <b>Maritime Science</b>           |
| <b>Networking Systems</b>         |
| <b>Web Development</b>            |
| <b>Welding</b>                    |
| <b>Engineering</b>                |
| <b>Teaching and Training</b>      |



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| Teaching and Training                    |
| Graphic Design and Multimedia Arts       |
| Business Management                      |
| Accounting and Financial Services        |
| Marketing and Sales                      |
| Distribution and Logistics               |
| Animal Science                           |
| Plant Science                            |
| Programming and Software Development (1) |

|   |
|---|
| <b>Programming and Software Development (2)</b> |
| <b>Family and Community Services</b>            |
| <b>Environmental and Natural Resources</b>      |
| <b>Graphic Design and Multimedia Arts</b>       |
| <b>Digital Communications</b>                   |
| <b>Animal Science</b>                           |
| <b>Plant Science</b>                            |
| <b>Engineering</b>                              |
| <b>Renewable Energy</b>                         |

|                                      |
|--------------------------------------|
| Renewable Energy                     |
| Emergency Services (1)               |
| Emergency Services (2)               |
| Healthcare Therapeutic               |
| Healthcare Diagnostics               |
| Healthcare Therapeutic               |
| Renewable Energy                     |
| Engineering                          |
| Programming and Software Development |

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|   |
| <b>Advanced Manufacturing and Machinery Mechanics</b> |
| <b>Engineering</b>                                    |
| <b>Environmental and Natural Resources</b>            |
| <b>Graphic Design and Multimedia Arts</b>             |
| <b>Healthcare Therapeutics</b>                        |
| <b>Entrepreneurship</b>                               |
| <b>Graphic Design and Multimedia Arts</b>             |
| <b>Programming and Software Development</b>           |
| <b>Engineering</b>                                    |

|   |
|---|
| <b>Engineering</b>                                    |
| <b>Government and Public Administration</b>           |
| <b>Graphic Design and Multimedia Arts</b>             |
| <b>Digital Communications</b>                         |
| <b>Accounting and Financial Services</b>              |
| <b>Business Management</b>                            |
| <b>Automotive</b>                                     |
| <b>Web Development</b>                                |
| <b>Advanced Manufacturing and Machinery Mechanics</b> |

|                                      |
|--------------------------------------|
| Healthcare Diagnostics               |
| Cybersecurity                        |
| Government and Public Administration |
| Emergency Services                   |
| Law Enforcement                      |
| Legal Studies                        |
| Digital Communications               |
| Plumbing and Pipefitting             |
| Business Management                  |

|   |
|---|
| <b>Business Management</b>                  |
| <b>Graphic Design and Multimedia Arts</b>   |
| <b>Digital Communications</b>               |
| <b>Automotive</b>                           |
| <b>Networking Systems</b>                   |
| <b>Drone (Unarmed Flight)</b>               |
| <b>Programming and Software Development</b> |
| <b>Healthcare Diagnostics</b>               |
| <b>Cosmetology</b>                          |

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| Architectural Design                   |
| HVAC and Sheet Metal (PTECH 22/23)     |
| Healthcare Diagnostics                 |
| Construction Management and Inspection |
| Marketing and Sales                    |
| Culinary Arts                          |
| Automotive                             |
| Architectural Design                   |
| Electrical                             |



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|--|
| Electrical                                   |
| Refining & Chemical Processes                |
| Welding                                      |
| Teaching and Training                        |
| Cosmetology                                  |
| Government and Public Administration         |
| Healthcare Diagnostics                       |
| Graphic Design and Multimedia Arts           |
| Graphic Design and Multimedia Arts (Futures) |

|   |
|---|
| <b>Entrepreneurship</b>                   |
| <b>Graohic Design and Multimedia Arts</b> |
| <b>Digital Communications</b>             |
| <b>Accounting and Financial Services</b>  |
| <b>Business Management</b>                |
| <b>Culinary Arts</b>                      |
| <b>Lodging and Resort Management</b>      |
| <b>Animal Science</b>                     |
| <b>Plant Science</b>                      |

|                                      |
|--------------------------------------|
| Plant Science                        |
| Engineering                          |
| Programming and Software Development |
| Exercise Science and Wellness        |
| Family and Community Services        |
| Graphic Design and Multimedia Arts   |
| Biomedical Science                   |
| Networking Systems                   |
| Automotive                           |
|                                      |

|   |
|---|
| <b>Animal Science</b>                                 |
| <b>Advanced Manufacturing and Machinery Mechanics</b> |
| <b>Welding</b>  |
| <b>Engineering</b>                                    |
| <b>Healthcare Diagnostics</b>                         |
| <b>Cosmetology</b>                                    |
|   |
| <b>Programming and Software Development</b>           |
| <b>Programming and Software Development</b>           |
|   |

|                        |
|------------------------|
| Marketing and Sales    |
| Carpentry              |
| HVAC and Sheet Metal   |
| Culinary Arts          |
| Welding                |
| Cybersecurity          |
| Engineering            |
| Healthcare Diagnostics |
| Cosmetology            |
| Health Informatics     |

|                                      |
|--------------------------------------|
| Health Informatics                   |
| Entrepreneurship                     |
| Government and Public Administration |
| HVAC and Sheet Metal (DCH)           |
| Networking Systems                   |
| Automotive                           |
| Animal Science                       |
| Emergency Services                   |
| Digital Communications               |

**Graphic Design and Multimedia Arts**

**Culinary Arts**

**Lodging and Resort Management**

**Cybersecurity**

**HVAC and Sheet Metal**

**Business Management**

**Teaching and Training**

**Plant Science**

**Graphic Design and Multimedia Arts**

**Graphic Design and Multimedia Arts**

**Digital Communications**

**Healthcare Diagnostics**

**Graphic Design and Multimedia Arts**

**Entrepreneurship**

**Advanced Manufacturing and Machinery Mechanics**

**Programming and Software Development**

**Business Management**

**Engineering**



**Business Management**

**Welding**

**Automotive**

**Aviation Maintenance**

**Law Enforcement**

**Graphic Design and Multimedia Arts**

**Digital Communications**

**Business Management**

**Automotive**

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|---|
| Information Technology Support and Services |
| Engineering                                 |
| Healthcare Therapeutics                     |
| Animal Science                              |
| Plant Science                               |
| Carpentry                                   |
| Networking Systems                          |
| Engineering                                 |
| Business Management                         |

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|---|
| <b>Business Management</b>                    |
| <b>Web Development</b>                        |
| <b>Automotive</b>                             |
| <b>Engineering</b>                            |
| <b>Emergency Services</b>                     |
| <b>Healthcare Diagnostics</b>                 |
| <b>Environmental and Natural Resources</b>    |
| <b>Graphic Design and Multimedia Arts (1)</b> |
| <b>Graphic Design and Multimedia Arts (2)</b> |

|                                      |
|--------------------------------------|
| Digital Communications               |
| Accounting and Financial Services    |
| Business Management                  |
| Culinary Arts                        |
| Programming and Software Development |
| Engineering (PLTW)                   |
| Legal Studies                        |
| Healthcare Diagnostics               |
| Graphic Design and Multimedia Arts   |

|                                      |
|--------------------------------------|
| Graphic Design and Multimedia Arts   |
| Culinary Arts                        |
| Web Development                      |
| Automotive                           |
| Government and Public Administration |
| Early Learning (PTECH)               |
| Carpentry                            |
| Business Management                  |
| Welding                              |
| Engineering                          |

|                                      |
|--------------------------------------|
| Engineering                          |
| Programming and Software Development |
| Early Learning                       |
| Teaching and Training                |
| Law Enforcement                      |
| Animal Science                       |
| Lodging and Resort Management        |
| Web Development                      |
| Teaching and Training                |

**Graphic Design and Multimedia Arts**

**Digital Communications (1)**

**Digital Communications (2)**

**Entrepreneurship**

**Distribution and Logistics**

**Biomedical Science**

**Engineering**

**Programming and Software Development**