



## Tennessee Pathways Certification Application

**\*Note:** *This exemplar application is based on course offerings and partnerships in Coffee County. While most elements of the application are factual, some minor details and components of supporting documentation were designed by the Tennessee Pathways team for this exemplar application.*

In the appropriate spaces below, enter information about your high school's pathway and associated partnerships to be considered for certification. At the bottom of each section below, you will find suggestions for supporting documentation along with relevant resources. Please ensure that this application and supporting documentation are uploaded to your district's LEA Document Library in ePlan for review by **April 15, 2019**. Click [here](#) for the application guide.

**Note:** If you are submitting multiple pathways for certification, please complete separate applications for each pathway.

### Section 1: Labor Market Justification

Certified Tennessee Pathways are intended to connect high school coursework and experiences to career opportunities. Using the labor market information template in ePlan, provide local, regional, and/or statewide data showing how the pathway is aligned to economic and labor market needs. Please cite sources in the template or include supporting documentation.

Aligned industry sector(s)

*Supporting Documentation (required):* Labor market information template

*Resources:* [Jobs4TN](#), [TNECD County Profile Tool](#), [2018 LEAP Occupational Analysis](#), [InformTN](#), [TSBA District Data Dashboard](#), local chamber of commerce, etc.

### Section 2: Certified Pathway Elective Focus and Aligned Early Postsecondary Opportunities (EPSOs)

List a sequence of **at least three** course names and associated course codes comprising the area of elective focus, adding more rows as needed. A minimum of **two** EPSOs must be offered as a component of—or in addition—to elective focus coursework.

For CTE programs of study, EPSOs can go above and beyond what is listed in the department's program of study guide (e.g. dual enrollment college algebra for a mechatronics program of study).

Please list courses and course codes for the 2018-19 school year.

If applicable, list the CTE program of study:

Course Name	Course Code
<b>Example:</b> AP Biology	<b>Example:</b> 3217
Principles of Engineering	5924
Digital Electronics	5925
Robotics & Automated Systems	6143
AP Physics	3064
Statewide Dual Credit: Pre-Calculus	6432
AP Calculus AB	3127
AP English Language & Composition	3013
AP US History	3440

Supporting Documentation (**required**): 2018-19 & 2019-20 master schedules showing course offerings

Resources: [Correlation of Course Codes](#), [Early Postsecondary Opportunities](#)

### Section 3: Postsecondary Articulation Agreement(s)

If your pathway includes local dual credit or dual enrollment coursework, list the postsecondary institution(s) accepting coursework/credit for courses listed above. Please indicate which courses are accepted for credit at each institution below:

Course Name	Course Code	Institution Accepting Credit
<b>Example:</b> Dual enrollment Mechatronics	<b>Example:</b> 4063	<b>Example:</b> Motlow State
Click or tap here to enter text.		
Click or tap here to enter text.		
Click or tap here to enter text.		
Click or tap here to enter text.		

If this pathway includes AP, IB, Cambridge, or statewide dual credit courses, use the space below to describe the institutions and programs where students typically use this credit. Please also include any partnership agreements or engagement between your school and the corresponding postsecondary institution(s). Please include information about any additional partnerships with postsecondary institutions that may not be reflected in the table above or accept credit for AP, IB, Cambridge, or statewide dual credit courses (e.g. TCAT).

*Many students in this pathway are interested in engineering and attend Tennessee Technological University (TTU) for mechanical or electrical engineering after high school. Some students in this pathway also choose to attend Motlow State to pursue a Tennessee Transfer Pathway in engineering or to enroll in the Mechatronics Technology program. Both Motlow State and TTU accept credit for all of the EPSOs listed above in section 2. Additionally, some students in this pathway choose to enroll in TCAT McMinnville's industrial maintenance program. Although we do not have a direct articulation agreement with this institution, several students have even enrolled in these courses onsite at VIAM while in high school. We emphasize to students in this pathway that any level of postsecondary education is open to them after high school.*



*We engage with all of these postsecondary institutions in a variety of ways. All three participate in a college fair for students and families each fall and share information about their programs. We ask Motlow State and TTU to share specific information about Tennessee Transfer Pathways so that students are aware of how they can continue their education after earning an associate's degree if they so choose. We also organize tours of these campuses for juniors each spring. Students interact with current college students, faculty, and admissions staff and are also given the opportunity to learn about a wide variety of programs available at each institution. Following these tours, we have juniors make a poster to show a specific career opportunity they would like to pursue and which postsecondary program(s) will lead to this career.*

**Supporting Documentation (required for local agreements):** Articulation agreement(s) with postsecondary institution(s) and description(s) of partnership(s)

## Section 4: Employer Partnerships

- 1) List all employer partners for this pathway below. You may also include chamber or other workforce partners who help to establish or expand partnerships.

Employer or Workforce Partners *VIAM Manufacturing Inc.*

- 2) Please select career-related activities and experiences offered to your high school students from the list below, indicating which employer offers each experience and for which grade level(s). Check all that apply.

	Activity/Experience	Employer(s)	Grade Level(s)
<input checked="" type="checkbox"/>	Career fair	Multiple Companies	All-Annually (held in Oct.)
<input checked="" type="checkbox"/>	Guest speaker	EdSouth	All-Annually
<input checked="" type="checkbox"/>	Industry/business tour	VIAM	Annually based on program of study
<input checked="" type="checkbox"/>	Job shadowing	VIAM	11 & 12
<input type="checkbox"/>	Student-run enterprise		
<input checked="" type="checkbox"/>	Internship, clinical, or other work-based learning capstone experience	VIAM	12
<input type="checkbox"/>	Apprenticeship		
<input type="checkbox"/>	Other (please describe):		

- 3) In the space below, describe at least one employer partnership and how the partnership was established, how the partnership prepares students for high-quality careers, and how the partnership impacts student outcomes (e.g. employment, credential attainment).

*VIAM, Manufacturing is a global original equipment supplier that provides high-quality, custom designed floor, trunk, and cargo mats for the automotive industry. We began our partnership with VIAM in 2016 because it is a major employer in our area with a variety of career opportunities, so it was a natural choice for a partnership designed to better prepare students for the world of work. After observing a strong work-based learning program at an electrical wiring company in Georgia and seeing firsthand how a program like this could be structured, we approached VIAM to begin developing the program.*



*The program began with six students and quickly grew to 25 in just the first year. We began by offering the experience only to seniors who were concentrators in advanced manufacturing, but due to the variety of opportunities at VIAM, we have since expanded the program to include students in STEM and automotive programs of study. In their paid work-based learning placements, students fabricate and join parts together to construct custom floor, trunk, and cargo mats for the automotive industry. Students rotate duties along an assembly line in a production cell created specifically for their use. Assembly line workers begin by reading technical schematics to become familiar with the construction process. They measure parts and use tools to shape and trim them down to appropriate size. They then operate finishing machines to edge and or connect parts together. They may use a variety of hand and power tools, such as a sewing machine, grommet press, and punch press. Due to the extensive use of automated technology on assembly lines, some students will operate and monitor machines, such as cutting robots used in production or computer-controlled machines used to shape parts.*

*In addition to these technical skills, the experience also focuses on work ethic, responsibility, time management skills, and teamwork. Students also observe maintenance technicians, and juniors and seniors have the opportunity to shadow these employees. For juniors, shadowing employees allows them to get a firsthand look at the facility and makes them more likely to participate in the program as seniors. Students can also enroll in the industrial maintenance program offered by TCAT McMinnville onsite at VIAM.*

*Since our partnership with VIAM began, students have consistently exceeded our expectations and those of the managers at VIAM. Initially, we anticipated issues with students being on time to work and performing the work correctly, but this was not the case. In fact, students have demonstrated a learning rate that is 30% faster than VIAM's hourly employees. This has resulted in increased efficiency and profit for the company, making the program mutually beneficial for the students and for VIAM.*

*We have also observed an improvement in attendance and graduation rates as a result of this program due to policies we implemented at the start. Students are required to attend school to report to VIAM in the afternoon and are provided with a \$1.00 per hour incentive bonus on top of their \$10.50 hourly rate if they report to work on time for 90 consecutive days. As a result of participating in this program, students are not only gaining important technical and employability skills, but are also more likely to persist through high school graduation. As a result of our partnership with VIAM, we saw the percentage of CTE concentrators increase from **47.9% to 58.8%** in just one school year (2016-17 to 2017-18). (**Source:** InformTN)*

**Supporting Documentation (required):** Letter(s) of support or MOU/MOA from employer partner(s) explaining career-related opportunities that each employer offers to students

## **Section 5: College and Career Advisement**

College and career advisement is an integral part of the Tennessee Pathways Certification as it provides students with the tools necessary to make informed decisions as they pursue their postsecondary goals. In this section, outline advisement activities and experiences offered to your high school students. While we know that advisement can and should occur throughout a student's



K-12 experience, please provide information on advisement structures and experiences available specifically for students at your high school.

- 1) Please select college and career advisement activities and experiences offered to your high school students from the list below. Check all that apply.

☐ Individualized college and career advisement

Description

- ☒ College and career fairs
- ☒ Student tours of local postsecondary institutions
- ☒ Student tours of local businesses
- ☒ Career-focused events, such as CareerQuest Tennessee or career expos
- ☒ Class presentations or guest speakers that discuss college and/or career options
- ☐ Industry-led classroom or schoolwide activities that help students with career planning
- ☒ Administration of career interest assessments and/or aptitude assessments (ex: CollegeforTN.org, Kuder, Naviance, YouScience, etc.)
- ☒ Career-focused classroom projects or assignments
- ☒ Teacher externships to learn about local industry (with lessons learned shared with students)
- ☐ Other: Description

- 2) In the space below, please describe how your school ensures high-quality advisement for all students, how you measure the impact of your advisement practices, and current results you attribute to your school's focus on college and career readiness (e.g. increasing seamless postsecondary enrollment, attainment of industry certifications, increases in EPSO enrollment, etc.).

*Coffee County Schools' career advisement starts in the sixth grade with the middle school STEM teacher. She works with students in sixth through eighth grades on a six-week rotation. During the STEM Foundations course, one of the six weeks is dedicated to career research, where students investigate education requirements, wages, employment opportunities, and related job duties. The teacher then shares the areas of elective focus offered at Coffee County Central High School using the attached [career pathways guide](#) from the high school to show students what courses they should take in high school to pursue their career goals. To make a deeper connection to high school, the teacher shares videos created by high school students in aligned career clusters that highlight projects related to their programs of study.*

*Students continue to explore careers in seventh, eighth, and ninth grade using the Kuder career exploration platform. In order to ensure that students can make real-world connections to careers they have been exploring, Coffee County holds an annual career fair each October. Before the career fair, students complete a survey to identify their top three areas of elective focus so that they can prioritize employers they should visit at the career fair. Students have the opportunity to engage with over 40 employer representatives as well as CTE instructors at the high school. Employer representatives offer a 20-minute session that provides information about particular careers, wages, and education requirements. Students rotate through three of these sessions based on their elective focus preferences.*

*School counselors then advise students through the high school registration process. Once students officially begin their programs of study as sophomores, teachers in the pathway advise them on early*



*postsecondary opportunities they should pursue and industry credentials they can earn in high school using the attached [EPSO guide](#) as a resource. These teachers also invite employers to serve as guest speakers in the classroom, embed career-focused classroom projects, and coordinate industry tours. This advisement continues throughout high school in each course in a student's pathway.*

*The CTE director serves as the lead for work-based learning opportunities and presents the work-based learning program with VIAM described above to juniors, as they must meet attendance and on-time graduation requirements to be considered for the program. As we referenced in section 3, juniors also have the opportunity to participate in postsecondary institution tours. Once students reach their senior year, school counselors and teachers assist students with meeting Tennessee Promise deadlines and requirements, applying for scholarships, and submitting college applications.*

*Overall, Coffee County Schools' educational leaders ensure that career advisement is a thoughtful spectrum of experiences for students and set the expectation that career advisement is a key responsibility for all adults engaging with students. Through our multiple targeted career exploration activities, Coffee County Central High School has experienced an **8.9% increase in EPSO participation** from 2015-16 to 2017-18 and an **increase of 1.5% in postsecondary enrollment** from 2015-16 to 2016-17. (Source: InformTN)*

*Supporting Documentation (**documentation required, suggested evidence listed here**):* Timeline that identifies when experiences are generally offered to students in the pathway, evidence of events (e.g. flyers, photos, sign-in sheets, student surveys, etc.), data demonstrating impact of advising practices (e.g. trends in EPSO and postsecondary enrollment), etc.

## Tennessee Pathways Labor Market Information Template

Using the template below, please provide local, regional, and/or statewide data showing how your pathway is aligned to economic needs that will prepare students for high-quality careers with opportunities for advancement. Please cite sources in your narrative or include attachments.

1. In the box below, describe and quantify the growth in local, regional, and/or statewide job opportunities (through job creation and/or projected job openings due to retirements) for industry sectors and/or occupational groups that align to the identified high school pathway you are submitting.<sup>1</sup>

Cluster 13.1000000 Precision Production Pathway: The outlook for this cluster statewide is Very Good. Occupations in this cluster are expected to be IN DEMAND with employers. The growth rate is positive but not above the average for all occupations. There are more job openings expected annually than there were training completers in a recent year.

Cluster 15.1280000 Mechanical Engineering Technology: The outlook for this cluster statewide is Very Good. Occupations in this cluster are expected to be IN DEMAND with employers. The growth rate is positive but not above the average for all occupations. There are more job openings expected annually than there were training completers in a recent year.

Average annual openings and growth rate through 2026 for specific occupations in both clusters are highlighted in [the attachment](#) on pages 4-6 and 9.

*Suggested Sources:* <https://www.tnecd.com> (Industries section and County Profile Tool), [LEAP 2018 Occupational Analysis](#), [Jobs4TN Industry & Occupational Employment Projections](#), [TSBA District Data Dashboard](#)

2. In the box below, highlight industry sectors and/or occupational groups aligned to your identified high school pathway that are considered high-wage in your region or across the state. High-wage occupations provide a median wage that is equal to or higher than 75% of the median wage for the region or state.

Occupational groups that are considered high-wage include:

- Architecture and Engineering
- Computer and Mathematical
- Installation, Maintenance, and Repair
- Production

Specific examples of occupations within these groups include:

- Mechanical Engineering Technicians
- Machinists

<sup>1</sup> If you are submitting a pathway for certification that is not captured in traditional labor market information, please skip to number 3.

- Computer Numerically Controlled Machine Tool Programmers
- Forging Machine Setters, Operators, and Tenders
- Rolling Machine Setters, Operators, and Tenders
- First-Line Supervisors of Production and Operating
- Computer-Controlled Machine Tool Operators

Wage information for all of these occupations is included in [the attachment](#) on pages 4-6 and 9.

*Suggested Sources:* [Jobs4TN Employment and Wage Data](#)<sup>2</sup>, [TSBA District Data Dashboard](#)

3. Use the box below if the high school pathway you are submitting is **not** captured in traditional labor market information.

Please include job growth or job opening trends for that industry sector or occupational group as well as wage information, including salary and fringe benefits like retirement and health insurance. For example, there is a need for educators in many communities across Tennessee and in many communities the local school system is the largest employer. Educators do not always show up clearly in labor market data, so a school submitting an education and training high school pathway for certification would use this box to describe the local labor demand for educators.

N/A

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<sup>2</sup> From the Jobs4TN.gov homepage, click on the "Labor Market Information dropdown menu and select "LMI Home." You will find Employment and Wage Data in the "Data Trends" group in the menu on the left-hand side of the page.





January 7, 2019

Tennessee Pathways  
1 Bridgestone Park  
Nashville, TN 37214

Dear Tennessee Pathways committee,

As the Chief Operations Officer of VIAM Manufacturing Inc., it is my pleasure to write this letter of support for the Coffee County School System. It is my belief that our work based learning agreement with the school district provides students with the opportunity for critical skill attainment needed for preparation in careers related to manufacturing and technology.

As a major employer in Coffee County, Tennessee, VIAM understands the value of investing in the education system. The school district's intent is to produce college and career ready students. Our role is providing early exposure to the world of work to better prepare students for college and full-time employment within local industries.

We currently offer a work based learning experience for students in advanced manufacturing, STEM, and automotive programs of study. In their paid work-based learning placements, students fabricate and join parts together to construct custom floor, trunk, and cargo mats for the automotive industry. Students rotate duties along an assembly line in a production cell created specifically for their use. In addition to technical skills, the experience also focuses on work ethic, responsibility, time management skills, and teamwork. Students also observe maintenance technicians and have the opportunity to shadow these employees to generate interest in the industrial maintenance program offered by TCAT McMinnville onsite at VIAM.

Since our partnership with Coffee County began, students have consistently exceeded our expectations and those of the managers at VIAM. In fact, students have demonstrated a learning rate that is 30% faster than VIAM's hourly employees. This has resulted in increased efficiency and profit for the company, making the program mutually beneficial for the students and for VIAM. We look forward to continuing our partnership with Coffee County School System and supporting their students in reaching their full potential.

Sincerely,

Keith Hayes  
COO VIAM Manufacturing Inc.



# MOTLOW STATE COMMUNITY COLLEGE

January 7, 2019

Tennessee Pathways  
1 Bridgestone Park  
Nashville, TN 37214

Dear Tennessee Pathways committee,

As president of Motlow State Community College, I am writing this letter of support for the Coffee County School System. Motlow State Community College is a public, multi-campus college in southern middle Tennessee offering certificates, associate degrees, and flexible learning pathways.

One of the goals we share with the Coffee County School System is a strong focus on aligning high school coursework to postsecondary credential attainment based on current and projected labor market demands. The school district has recognized that early postsecondary opportunities are a key component in achieving this goal. The school district's intent is to foster a postsecondary going culture that produces college and career ready students.

Through our partnership with Coffee County School System, we assist in this endeavor by providing area high school students with the opportunity to get a jump start on college courses through dual/joint enrollment. The College has partnered with other in-state universities allowing students to obtain four-year degrees while staying close to home. The 2+2 program in Elementary Education (K-6) in partnership with Tennessee Technological University allows students to earn a Bachelor of Science degree in elementary education in Motlow classrooms. In addition, the 2+2 program in Criminal Justice Administration allows students to attend classes at Motlow's Moore county campus to work towards a bachelor's degree.

The quality, flexibility and variety of programs offered at Motlow shows our commitment to meeting the needs of students while they are still in high school. Motlow has proven to be a student-centered institution that promotes academic excellence and I look forward to what the future brings for these students.

Sincerely,

Michael Torrence  
President

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(931) 393-1500 • [www.mscc.edu](http://www.mscc.edu)  
A Tennessee Board of Regents Institution*



# TENNESSEE COLLEGE OF APPLIED TECHNOLOGY

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McMINNVILLE

January 7, 2019

Tennessee Pathways  
1 Bridgestone Park  
Nashville, TN 37214

Dear Tennessee Pathways committee,

As the President of the Tennessee College of Applied Technology (TCAT) McMinnville, I am writing this letter of support for the Coffee County School System. TCAT McMinnville has a strong partnership with the local school system to offer early postsecondary opportunities for their students.

One of the goals for Coffee County School System is a strong focus on aligning high school coursework to workforce development based on current and projected labor market demands. To achieve this goal, the school district recognizes that early postsecondary opportunities are key to their students' future success. The school district's intent is to develop a culture that will produce college and career ready students.

Through our partnership with Coffee County School System, we will assist in this endeavor. As the local TCAT, we plan to provide dual credit/enrollment opportunities as well as industry certification training. We realize that a strong partnership between school district and TCAT McMinnville will ensure student success and ultimately lead to work-ready community.

I fully support Coffee County Schools and believe that early postsecondary achievement will increase postsecondary attainment and lead students to success in high demand, high skill, and high wage job opportunities.

Sincerely,

Dr. Warren Laux  
President



# Tennessee TECH

January 7, 2019

Tennessee Pathways  
1 Bridgestone Park  
Nashville, TN 37214

Dear Tennessee Pathways committee,

I am proud to serve as counselor at Tennessee Technological University, a leader in quality education in Tennessee. I am writing this letter of support for the Coffee County School System.

One of the goals for Coffee County School System is a strong focus on aligning high school coursework to postsecondary credential attainment based on current and projected labor market demands. To achieve this goal, the school district recognizes that early postsecondary opportunities are key to their students' future success. The school district's intent is to develop a culture that will produce college and career ready students.

Through our partnership with Coffee County School System, we assist in this endeavor by participating in career fairs and college events. I serve as liaison for information about campus tours and providing students with advisement on transferable credit as they select from college level course offerings through local dual/joint enrollment. Students from Coffee County who wish to pursue a bachelor's degree can take advantage of their advanced credit in several academic fields at our institution through the Tennessee transfer pathways. I believe passionately in the student-centered university and I am pleased that Tennessee Tech is part of the Tennessee Pathways initiative. I look forward to what the future brings for these students.

Sincerely,

Ted McWilliams, Counselor

Tennessee High School Counties: Franklin, Grundy, Marion, Sequatchie, Bledsoe, Hamilton, Rhea, Meigs, McMinn, Bradley, Loudon, Monroe, Polk, Blount, Sevier, Roane, Coffee, Moore, Lincoln