

# Navigate AI

## CTE Career Pathway: Information Technology

Multi-State Alignment Guide

Texas • Florida • Arizona • Arkansas

Prepared by Navigate AI LLC | April 2026

### 1. Navigate AI CTE (Career and Technical Education) Pathway Overview

Navigate AI offers a structured, four-course career pathway in Information Technology that prepares students (grades 9–12) for industry-recognized certifications and careers in AI, cloud computing, and IT support. This pathway is designed to align with Career and Technical Education (CTE) frameworks across all four states where Navigate AI is an approved vendor.

The pathway follows a progressive Level 1 through Level 4 course structure. Students begin with IT fundamentals and earn the CompTIA Tech+ Certification (TEA Tier 2, Florida CAPE listed, recognized in AZ and AR), then learn cloud infrastructure and earn the AWS Certified Cloud Practitioner Certification (TEA Tier 1, Florida CAPE listed, recognized in AZ and AR), then build real AI applications and earn the AWS Certified AI Practitioner Certification, and finally deploy a live application on AWS as a capstone project. Students who complete the full sequence and earn their certifications can build a transcript that speaks the same language as public school CTE programs, backed by externally validated, industry-recognized credentials.

#### 1.1 Core Pathway: Four-Course Sequence

Course	Level	Year	Industry Certification	State Recognition	Hrs	Cr
IT Fundamentals + CompTIA Tech+ Prep	Level 1	Year 1 (9th)	CompTIA Tech+ (FC0-U71)	TX: #481 Tier 2; FL: CAPE; AZ/AR: Recognized	150	1.0
AWS Cloud Practitioner Prep	Level 2	Year 2 (10th)	AWS Certified Cloud Practitioner	TX: #1104 Tier 1; FL: CAPE; AZ/AR: Recognized	150	1.0
Building AI Applications + AWS AI Practitioner Prep	Level 3	Year 3 (11th)	AWS Certified AI Practitioner (AIF-C01)	TX: Not yet listed; FL: Pending CAPE; AZ/AR: AWS credential	150	1.0
Capstone: Deploy an Application on AWS	Level 4	Year 4 (12th)	Portfolio + live deployment	Portfolio-based (all states)	120	1.0

**Total: 4 year-long courses (8 semesters) | 4 credits\* | Levels 1–4 | 3 industry certifications | ~\$279–\$329 in exam fees**

#### 1.2 Semester-by-Semester Breakdown

Each course follows a Semester 1 / Semester 2 model. Semester 1 delivers core instruction (16 weeks, live), and Semester 2 provides certification exam preparation, hands-on labs, and applied projects (16 weeks). Students who pursue industry certifications independently schedule their exam after Semester 2. If students do not wish to pursue certification, Semester 2 in each year may be omitted.

Year / Course	Grade	Semester 1 (16 weeks): Core Instruction	Semester 2 (16 weeks): Cert Prep + Applied Labs	Credential
Year 1: IT Fundamentals + CompTIA Tech+ Prep	9th	Core IT instruction: hardware, software, networking, databases, security, and basic programming	CompTIA Tech+ exam prep, practice exams, applied labs	CompTIA Tech+
Year 2: AWS Cloud	10th	AWS Cloud foundations:	AWS Cloud Practitioner exam	AWS CCP

<b>Practitioner Prep</b>		compute, storage, networking, databases, security, and billing on AWS	prep, practice exams, hands-on AWS labs	
<b>Year 3: Building AI Applications + AWS AI Practitioner Prep</b>	11th	Building real AI applications: APIs, retrieval-augmented generation (RAG), prompt engineering	AWS AI Practitioner exam prep, practice exams, applied AI/ML labs (50% exam discount applies)	<b>AWS AI Practitioner</b>
<b>Year 4: Capstone: Deploy an Application on AWS</b>	12th	Capstone design and build: architect and develop a deployable application on AWS	Capstone deploy and present: live deployment, portfolio, student presentation	<b>Portfolio</b>

### 1.3 Why This Sequence

**Level 1 - IT Fundamentals + CompTIA Tech+:** Students survey the IT landscape: hardware, software, networking, databases, security, and basic programming. The CompTIA Tech+ exam objectives map almost 1:1 to the Principles of Information Technology TEKS in Texas ([tea.texas.gov/cte](http://tea.texas.gov/cte)), align with Digital Business Foundations in the Florida Cloud Computing and Virtualization program ([fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/2026-27-frameworks/info-technology.stml](http://fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/2026-27-frameworks/info-technology.stml)), align with the Technology Devices Maintenance program in Arizona ([azed.gov/cte/it](http://azed.gov/cte/it)), and align with Introduction to Computer Science in the Arkansas Digital Technology cluster ([dcte.ade.arkansas.gov/Page/Pathways](http://dcte.ade.arkansas.gov/Page/Pathways)). CompTIA Tech+ is listed on both the TEA IBC list (Tier 2) and the Florida CAPE Industry Certification Funding List, and is recognized as an industry credential in Arizona and Arkansas. Students earn their first industry certification at the end of Year 1.

**Level 2 - AWS Cloud Practitioner:** Students learn cloud infrastructure: compute, storage, networking, databases, security, and billing on AWS. This is the foundation for everything that follows. This course aligns with the Florida Cloud Computing and Virtualization program (9001500), the Arizona Network Security and Technology Devices Maintenance programs, and the Information Technology and Security pathway in the Arkansas Digital Technology cluster. AWS Cloud Practitioner is a TEA Tier 1 IBC (the highest value tier), is listed on the Florida CAPE Industry Certification Funding List, and is recognized as an industry credential in Arizona and Arkansas. AWS itself recommends Cloud Practitioner before the AI Practitioner exam.

**Level 3 - Building AI Applications + AWS AI Practitioner:** With IT fundamentals and cloud infrastructure in place, students build real AI applications using APIs, retrieval-augmented generation (RAG), and prompt engineering. This course aligns with the Florida Artificial Intelligence (AI) Foundations program (9401100), the Arizona Software and App Design program, and the Data Analytics and Machine Learning pathway in the Arkansas Digital Technology cluster.

The AWS Certified AI Practitioner exam validates foundational knowledge of AI/ML concepts, generative AI, applications of foundation models, responsible AI practices, and how to apply AWS AI services (such as Amazon Bedrock, SageMaker, and Rekognition) to real business problems. This certification launched in August 2024 and is not yet on the TEA IBC list or the Florida CAPE list, but as an AWS credential it carries universal industry recognition across all four states. Because the student already holds Cloud Practitioner, they receive a 50% discount on the AI Practitioner exam (\$100 → \$50).

**Level 4 - Capstone: Deploy an Application on AWS:** Students design, build, deploy, and present a live application on AWS infrastructure. This could be an AI-powered chatbot, a data dashboard, a web application, or any project that leverages the cloud skills learned in Level 2. The deliverable is a functioning application, full documentation, and a portfolio presentation - ready for college applications and job interviews.

### 1.4 Credit Hour Definition

\*Navigate AI does not award high school credits directly. Credit decisions are made by the parent (for homeschool families) or the student's school of record. However, this pathway is designed to align with standard high school credit expectations. Each course spans a full academic year (approximately 36 weeks) of synchronous instruction, asynchronous assignments, projects, labs, and assessments, which is consistent with how most states and institutions define 1.0 high school credit.

### 1.5 Flexible Entry Points

Navigate AI's pathway is designed so students can begin at any grade level and still earn industry certifications and complete the sequence. Students entering the pathway after 9th grade may take courses concurrently or use guided self-study to catch up.

Entry Grade	Pathway Plan	Certs Possible	Full Sequence?	Years
9th	Full pathway: IT Fundamentals (9th) → AWS Cloud Practitioner (10th) → Building AI Apps (11th) → Capstone (12th)	3	Yes	4
10th	IT Fundamentals (10th) → AWS Cloud Practitioner (11th) → Building AI Apps + Capstone concurrent (12th)	3	Yes	3
11th	Building AI Apps live (11th) + AWS Cloud Practitioner guided self-study (11th) → Capstone + CompTIA Tech+ guided self-study (12th)	Up to 3	Yes	2
12th	Building AI Apps live (12th, S1) + AWS Cloud Practitioner guided self-study (12th, S1) + Capstone (12th, S2). CompTIA Tech+ guided self-study if time permits.	1-2	Partial*	1

\*A 12th-grade entrant can earn certifications and complete individual courses but may not finish enough courses for a full four-course pathway sequence in one year. Individual course enrollment is still valuable for transcript documentation, certifications, and college applications.

### How Accelerated Students Catch Up

Students entering in 10th, 11th, or 12th grade don't need to take every course as a live, full-year class. Navigate AI offers **Guided Certification Prep** for CompTIA Tech+ and AWS Cloud Practitioner which provides structured self-study plans with Navigate AI mentorship that run concurrently alongside the student's primary live course. This allows older entrants to still earn multiple certifications while completing the pathway in a compressed timeframe. Contact Navigate AI for a consult to determine individual/tailored pricing.

## 2. What This Means for Families, Microschools, and Private Schools

Navigate AI's CTE pathway alignment is designed to give families, microschoools, and private schools the structure, language, and external validation needed to build a credible, compelling transcript. Microschools and private schools can adopt the full Navigate AI curriculum as a licensed program, or students from any school can independently enroll in Navigate AI classes. Homeschool families can use the pathway directly with parent-led administration. In all cases, the same CTE-aligned documentation and industry certifications apply.

### 2.1 College Admissions: A Coherent Story

Families, microschoools, and private schools invest tremendous time and thought into building rigorous transcripts. Navigate AI's CTE pathway gives these settings a way to achieve the same structured, progressive career and technical education sequence that public school students access through their district CTE programs. A four-year, leveled career pathway with three industry certifications signals intentionality, rigor, and career focus in a format that admissions officers immediately recognize. The certifications themselves are proctored, third-party exams that provide external validation alongside the grades and coursework administrators and parents have already built into the transcript.

### 2.2 Scholarship Applications: Documented Rigor

Scholarship committees want evidence of meaningful achievement. "My child took four years of IT courses" is one statement. "My child completed a structured Information Technology career pathway and earned three industry certifications, including an AWS Tier 1 credential" is a fundamentally different one. The certifications are the proof - no grade inflation, no parent bias.

### 2.3 ESA Justification: Defensible Spending

When families, microschoools, or private schools use ESA funds (Florida PEP, Texas TEFA, Arizona ESA, Arkansas LEARNS Act) to pay for Navigate AI courses, they may need to justify spending to the scholarship organization or an auditor. Courses aligned to state CTE frameworks with aligned industry certifications are far easier to defend than unstructured electives. The CTE alignment documentation provides the language and structure to make ESA expenditures clearly defensible.

## 2.4 College Readiness and Placement: Recognized Language

Navigate AI courses are not dual enrollment and do not carry college credit on their own. However, when a student who has completed this pathway enters a community college or transitions to a university program, the CTE-aligned course names and industry certifications on their transcript give academic advisors a clear picture of what the student already knows. An advisor can look at “AWS Cloud Practitioner Prep, aligned to TEA Advanced Cloud Computing (13027520)” and immediately understand the student’s preparation level. The certifications themselves may also satisfy prerequisite requirements or earn credit through institutional articulation agreements, depending on the college.

## 2.5 What This Does Not Do

CTE alignment does not give homeschool, microschool, or private school students any official state recognition beyond what they already have. In Texas, Florida, Arizona, and Arkansas, parents and private school administrators have full transcript authority regardless of whether courses are CTE-aligned. The certifications carry the same weight whether earned through Navigate AI’s structured pathway or independent study. The value is in the packaging — the coherent story, progressive structure, and documentation that makes the difference when transcripts are evaluated by admissions officers, scholarship committees, and ESA programs.

## 3. State-by-State CTE Alignment

Each state structures CTE programs differently, but all share the same federal foundation under the Strengthening Career and Technical Education for the 21st Century Act (Perkins V, [congress.gov/bill/115th-congress/house-bill/2353](https://www.congress.gov/bills/115/congress/house-bill/2353)). Below is how Navigate AI’s pathway maps to each state’s framework.

### 3.1 Texas

#### TEA Programs of Study - Information Technology Support and Services

**Source:** [tea.texas.gov/cte](https://tea.texas.gov/cte) → Programs of Study → Information Technology Support and Services

**Completer:** Per TEA, a CTE Completer is a student who completes, passes, and receives credit for three or more high school CTE courses for four or more credits, including at least one Level 3 or Level 4 course, from within the same program of study. A CTE Concentrator is a student who has completed two or more courses for at least two credits within the same program of study.

**Endorsement:** Satisfies Business & Industry endorsement. Supports STEM endorsement with Algebra II, Chemistry, and Physics.

Navigate AI Course	TEA Course Alignment	Lvl	Aligned IBC
IT Fundamentals + Tech+	Principles of Information Technology (13027200)	1	CompTIA Tech+ (#481, Tier 2)
AWS Cloud Practitioner	Advanced Cloud Computing (13027520)	3	AWS CCP (#1104, Tier 1)
Building AI Apps + AI Practitioner	Information Technology Troubleshooting (13027535) or Independent Study in Evolving/Emerging Technologies (03581500) — no AI-specific Level 3 course exists in this program of study	3	AWS AI Practitioner (not yet on IBC list)
Capstone: Deploy an Application on AWS	Independent Study in Evolving/Emerging Technologies (03581500) or CTE Project-Based Capstone (12701101)	4	Portfolio-based

**Tech+ → Principles of IT:** The CompTIA Tech+ exam objectives (hardware, software, networking, databases, programming, security) map almost 1:1 to the Principles of IT TEKS. A student who passes Tech+ has demonstrably mastered the course content.

**Homeschool:** Texas homeschools are private schools under *Leeper v. Arlington ISD* (1994). No state approval required. Parent assigns levels, credits, and transcript entries. Certifications serve as external validation.

**IBC List:** IBC stands for Industry-Based Certification. The TEA 2025–2030 IBC List for Public School Accountability is available at [tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications](https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications)

### 3.2 Florida

#### FLDOE CTE Curriculum Frameworks - Information Technology

**Source:** [fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/2026-27-frameworks/info-technology.stml](https://fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/2026-27-frameworks/info-technology.stml) (2026–27 IT Frameworks: Cloud Computing & Virtualization, program 9001500; AI Foundations, program 9401100)

**Completer:** Florida uses two definitions. A CTE Concentrator is a student who has completed at least three course sequences in a CTE program of study. A CTE Pathway Completer is a Concentrator who has also earned the industry certification aligned to that program, as listed on the Secondary CTE Program to Industry Certification Linkage List.

Navigate AI's pathway aligns with two programs in the Information Technology cluster: Cloud Computing & Virtualization (9001500, a 6-credit Career Preparatory program covering IT fundamentals through cloud infrastructure) and Artificial Intelligence (AI) Foundations (9401100, a 3-credit program covering AI/ML concepts, system design, and deployment).

Navigate AI Course	Florida Alignment	CAPE Cert
IT Fundamentals + Tech+	Digital Business Foundations (8207310) in Cloud Computing & Virtualization program (9001500)	CompTIA Tech+ (on CAPE list)
AWS Cloud Practitioner	Essentials of Cloud Technology (9001530) and Network Engineering and Support (9001520) in Cloud Computing & Virtualization program (9001500)	AWS CCP (on CAPE list)
Building AI Apps + AI Practitioner	Applications of Artificial Intelligence (9401020) and Foundations of Machine Learning (9401040) in Artificial Intelligence (AI) Foundations program (9401100)	AWS AI Practitioner (pending CAPE)
Capstone: Deploy an Application on AWS	Advanced Cloud Computing & Virtualization (9001550) in Cloud Computing & Virtualization program (9001500) or AI Foundations program capstone project	Portfolio-based

**Homeschool:** Florida families register with county superintendent but have full curriculum autonomy. PEP scholarship students can use ESA funds for approved providers including Navigate AI.

**CAPE List:** [fldoe.org/academics/career-adult-edu/cape-secondary/cape-industry-cert-funding-list-current.stml](https://fldoe.org/academics/career-adult-edu/cape-secondary/cape-industry-cert-funding-list-current.stml)

### 3.3 Arizona

#### ADE CTE Technical Standards - Information Technology

**Source:** [azed.gov/cte/it](https://azed.gov/cte/it) (Information Technologies cluster: Technology Devices Maintenance, Software and App Design, Network Security)

**Completer:** Arizona uses "Concentrator" as its primary CTE student status at the secondary level. A CTE Participant is a student who has completed and passed at least one CTE course worth at least one credit in a CTE program. A CTE Concentrator is a student who has completed and passed at least two courses worth at least one credit each in a single CTE program (internship and cooperative education courses are not counted).

CTE programs follow a coherent sequence of 2–3 required courses within a specific CIP (Classification of Instructional Programs) code. Navigate AI's pathway aligns with three programs under the Engineering / Information Technologies cluster: Technology Devices Maintenance (15.1202.00) for IT fundamentals, Network Security (11.1999.00) for cloud infrastructure and security, and Software and App Design (11.0202.00) for AI application development. Arizona recognizes industry certifications through its CTE Industry Credentials program ([azed.gov/cte/why-industry-recognized-credentials-matter-arizona-cte](https://azed.gov/cte/why-industry-recognized-credentials-matter-arizona-cte)). The current credential list is available at [azed.gov/sites/default/files/2024/07/Current-Credential-List.pdf](https://azed.gov/sites/default/files/2024/07/Current-Credential-List.pdf).

Navigate AI Course	Arizona Alignment	Pathway
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IT Fundamentals + Tech+	Technology Devices Maintenance (15.1202.00)	Engineering / Information Technologies
AWS Cloud Practitioner	Network Security (11.1999.00) / Technology Devices Maintenance (15.1202.00)	Engineering / Information Technologies
Building AI Apps + AI Practitioner	Software and App Design (11.0202.00)	Engineering / Information Technologies
Capstone: Deploy an Application on AWS	Software and App Design (11.0202.00) capstone project	Engineering / Information Technologies

**Homeschool:** Arizona ESA students can use funds for approved providers. Navigate AI is an approved ESA vendor. Parents maintain transcript authority.

**Industry Credentials:** [azed.gov/cte/why-industry-recognized-credentials-matter-arizona-cte](https://azed.gov/cte/why-industry-recognized-credentials-matter-arizona-cte)

### 3.4 Arkansas

#### DCTE CTE Pathway Guide - Information Technology

**Source:** [dcte.ade.arkansas.gov/Page/Pathways](https://dcte.ade.arkansas.gov/Page/Pathways) (Digital Technology / Computer Science cluster)

**Completer:** A CTE completer in Arkansas is a student who has completed three sequenced courses within a single pathway. Completer status is assigned regardless of grade level once three courses are complete. Navigate AI's courses fall within the Digital Technology (Computer Science) cluster and draw from multiple pathways within that cluster.

The IT fundamentals and cloud infrastructure courses align with the Information Technology and Security pathway (L1: Introduction to Computer Science, L2: Information Technology and Security), while the AI applications and capstone courses align with the Data Analytics and Machine Learning pathway (L2: Computing with Data, L3: Artificial Intelligence). Because the courses span two pathways, Navigate AI does not claim single-pathway completer status in Arkansas, but the cluster-level alignment and industry certifications provide strong CTE documentation for the transcript.

Navigate AI Course	Arkansas Alignment	Pathway
IT Fundamentals + Tech+	Introduction to Computer Science / AP Computer Science Principles	Digital Technology (Computer Science)
AWS Cloud Practitioner	Information Technology and Security / Computing with Data	Digital Technology (Computer Science)
Building AI Apps + AI Practitioner	Data Science / Artificial Intelligence	Digital Technology (Computer Science)
Capstone: Deploy an Application on AWS	Career Practicum / Capstone	Digital Technology (Computer Science)

**Key:** Arkansas is revising pathways for 2026–2027 to align with the National Career Cluster Framework. The pathway structure above reflects the current 2025–2028 revision guide. Navigate AI is an approved LEARNS Act vendor. Parents maintain full transcript authority.

## 4. Industry Certifications

Navigate AI's pathway prepares students for three industry-recognized certifications. The first two are confirmed on state IBC/CAPE lists. The third (AWS AI Practitioner) is an AWS certification launched in August 2024 and may be added to state lists in future update cycles.

	CompTIA Tech+	AWS Cloud Practitioner	AWS AI Practitioner
<b>When Earned</b>	Year 1 (Level 1)	Year 2 (Level 2)	Year 3 (Level 3)
<b>Exam Code</b>	FC0-U71	CLF-C02	AIF-C01
<b>Questions</b>	70 / 60 min	65 / 90 min	65 / 90 min
<b>Pass Score</b>	650 / 900	700 / 1,000	700 / 1,000
<b>Cost</b>	~\$129	\$100	\$50 (w/ AWS discount)
<b>TEA IBC</b>	#481 - Tier 2	#1104 - Tier 1	Not yet listed

<b>FL CAPE</b>	Yes	Yes	Pending
<b>AZ / AR</b>	Recognized	Recognized	AWS credential (universal)

Total exam cost for all three certifications: approximately \$279–\$329. AWS provides a 50% discount on subsequent exams after the first AWS certification is earned.

## 5. The Student Journey

### Year 1 - “What is the IT landscape and how does it all work?”

Students explore hardware, software, networking, databases, security, and programming basics. They earn CompTIA Tech+, proving foundational IT mastery with their first industry certification.

### Year 2 - “How does the cloud work, and why does everything run on it?”

Students learn AWS cloud infrastructure - compute, storage, networking, security, and billing. They earn AWS Certified Cloud Practitioner, a Tier 1 credential recognized as the gold standard entry point to cloud careers.

### Year 3 - “How do I build real AI applications, and how does AWS power AI at enterprise scale?”

In Semester 1, students build functional AI applications using open-source and free-tier tools: Python, the Gemini API, retrieval-augmented generation (RAG), and prompt engineering. They learn how AI applications actually work by building them from the ground up.

In Semester 2, students turn to the AWS Certified AI Practitioner exam, which surveys how the AWS ecosystem offers managed services (Amazon Bedrock, SageMaker, Rekognition, Comprehend, Q) that deliver these same capabilities at enterprise scale, along with the responsible AI practices and governance frameworks that enterprises require. The goal is for students to develop both practical building experience and fluency in the language of AWS AI services.

### Year 4 - “I’m launching my own project.”

Students design, build, deploy, and present a live application on AWS. The deliverable is a functioning app, full documentation, and a portfolio presentation - a tangible artifact for college applications, scholarship essays, and job interviews.

## 6. State CTE Reference Links

**Texas CTE Programs of Study:** [tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/cte-programs-of-study](https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/cte-programs-of-study)

**Texas IBC List (2025–2030):** [tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications](https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/industry-based-certifications)

**Florida CTE Frameworks:** [fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/](https://fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/)

**Florida CAPE List:** [fldoe.org/academics/career-adult-edu/cape-secondary/cape-industry-cert-funding-list-current.stml](https://fldoe.org/academics/career-adult-edu/cape-secondary/cape-industry-cert-funding-list-current.stml)

**Arizona CTE Programs:** [azed.gov/cte/programs/](https://azed.gov/cte/programs/)

**Arkansas CTE Pathways:** [dcte.ade.arkansas.gov/Page/Pathways](https://dcte.ade.arkansas.gov/Page/Pathways)

**CompTIA Tech+:** [comptia.org/certifications/tech](https://comptia.org/certifications/tech)

**AWS Cloud Practitioner:** [aws.amazon.com/certification/certified-cloud-practitioner/](https://aws.amazon.com/certification/certified-cloud-practitioner/)

**AWS AI Practitioner:** [aws.amazon.com/certification/certified-ai-practitioner/](https://aws.amazon.com/certification/certified-ai-practitioner/)