June 1, 2023

Dear President Gecker:

On April 20, 2023, twenty-one Virginia school divisions' applications were presented to the Board of Education. In their respective applications, the division detailed their plan to solve the teacher crisis impacting their schools. As part of their applications, these divisions identified iteach as their solution partner.

Based on feedback from board members, the Deputy Superintendent, and the Superintendent, iteach is providing the following documents in response and as evidence to substantiate our program quality and effectiveness:

1. **State Requirements for Coursework (Matrix)** – *Requested by Ms. Kim Richey*
   Compares the coursework requirements of Virginia to two other states in which iteach has earned approval.
2. **Teacher Effectiveness Data** – *Requested by Ms. Ann Holton*
   This document highlights three sources of data by which iteach can demonstrate the effectiveness of our teachers. The three sources are the Board of Regents (Louisiana State University), the Texas Education Agency, and an iteach Campus Administrator survey.
3. **Texas Educator Pathway Study** – *Requested by Superintendent Coons*
   In light of a June 2022 study published by the University of Texas, iteach has drafted a response highlighting the imperfections in the study which, unfortunately, groups iteach into an ill-fitting dataset.
4. **Coursework Crosswalk** – *Requested by Superintendent Coons (and Board Members)*
   This document demonstrates how the iteach coursework satisfies the methodology courses required by Virginia Administrative Code and outlined as a condition on the divisions' applications.

Additionally, iteach acknowledges that contained within some agreements with our division partners is a delineation for divisions to refrain from partnering with other programs like iteach (non-university programs) for a duration of 24 months. Divisions are welcome to create partnership with colleges and universities. Also, divisions were able to strike this clause from the agreement which some did – and iteach agreed.

We are confident that these documents will further solidify that our program adheres to the highest standards for teacher preparation. Not only have we been initially accredited and renewed by CAEP, we exceed most of the state standards detailed in administrative code, for the states in which we are approved.

We apricate your consideration on behalf our division partners who have submitted an application.

Sincerely,

Andrew Rozell, MBA President, iteach

State Required Coursework

This document articulates how other approving boards have considered the iteach coursework, as per the request of Kim Richey, Deputy Superintendent, on May 17, 2023.

iteach provides a catalog of courses as outlined in the far-left column (non-exhaustive). Of the eleven approvals we currently hold, no state requires credit from a college or university to be completed in addition to the iteach coursework.

iteach is CAEP accredited and currently approved in eleven states. Each department of education (board/commission of education) has completed a review of our coursework as part of their approval process. Below is the required coursework determination from two departments in comparison to the currently proposed approval in Virginia.

	Tennessee	Nevada	Virginia
Pedagogical Courses (Professional Studies)	300 Contact Hours Required Satisfied by iteach coursework	315 Contact Hours Required Satisfied by iteach coursework	270 Equivalent Contact Hours** Required Satisfied by iteach coursework
Content Methodology Courses	Not Required *(Demonstrated Competency via Praxis)*	18 credit hours completed at IHE or through iteach	15 credit hours only completed at an institution of higher education*
Literacy Courses	Not Required Available to iteach students (upto 135 contact hours)	Not Required Available to iteach students (upto 135 contact hours)	Only completed at an institution of higher education

*The requirement of 15 credit hours to be completed at a university is unique to Virginia and does not exist in any other state in which iteach has applied or been approved.

**8VAC-20-23-190 articulates 18 semester hours requirement for professional studies courses which is 270 equivalent contact hours based on the Carnegie unit. Source: Carnegie Foundation

Teacher Effectiveness Data

iteach is committed to ensuring that our preparation program leads to student learning and achievement. To that end, we fully support and seek opportunities to gather data on the performance of our teacher candidates. iteach believes teacher effectiveness data shows the quality of our program but also provides opportunities for program reflection and improvement.

This document contains data from three sources:

- Source 1: Louisiana Board of Regents
    - The data leverages the Compass tool to ascertain teachers' Impact on Student Learning. The three areas highlighted below demonstrate the impact iteach candidates have in the classroom. You can view the full data set on the Board of Regents website and verify that this data set favorably compares to all preparation routes in the state.
- Source 2: Campus Administrator Survey
    - A survey was provided directly to Campus Administrators for their feedback on first-year iteach teacher candidates. This survey was completed by over 200 administrators through an anonymous Survey Monkey.
- Source 3: Texas Education Agency (TEA)
    - This is a required survey also sent to campus administrators (Principals) for each teacher in Texas. As noted in the final slide from TEA, we outperform the state average on accountability measures.

Source 1: Louisiana Board of Regents (Compass Scores - 1st Year Teaching)

Impact on K12 Students (4.0 scale)

Compass Student Growth Mean Score:	3.2	
Highly Effective, Effective Proficient:		87%
Ineffective:		4%

Demonstrated Teaching Skill

Compass Professional Practice Score:	3.2	
Highly Effective, Effective Proficient:		92%
Ineffective:		0%

Overall Impact and Demonstrated Teaching Skill

Compass Final Evaluation Score:	3.3	
Highly Effective, Effective Proficient:		91%
Ineffective:		1%

Source 2: Campus Administrator Survey, SY 2022-2023

Q15. Would you hire another iteach teacher candidate?

Yes: 99.26%

No: 0.74%

Q17. Do you believe iteach provides a needed option/route to certification?

Yes: 99.25%

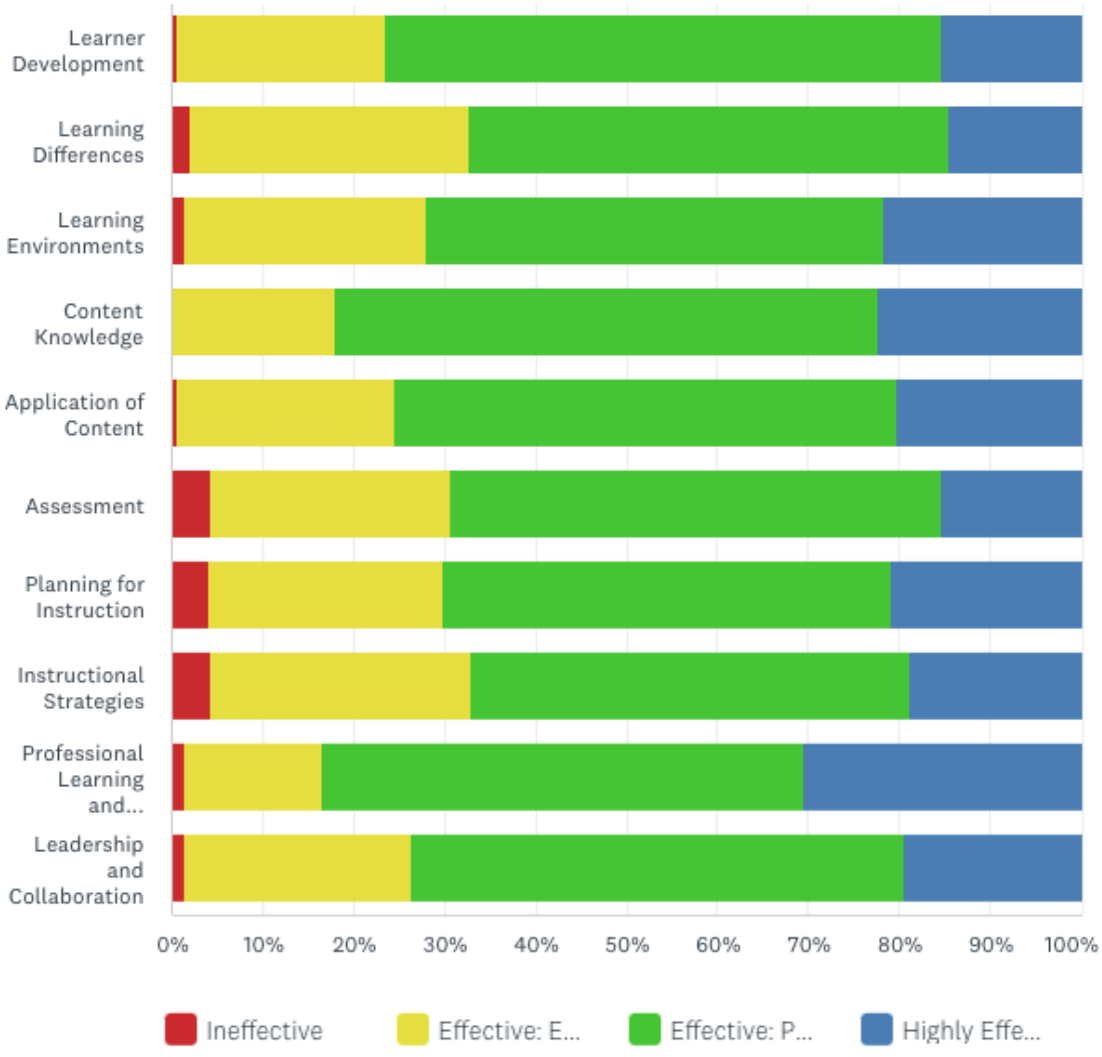
No: 0.75%

Q21. How would your rate our program, as a whole?

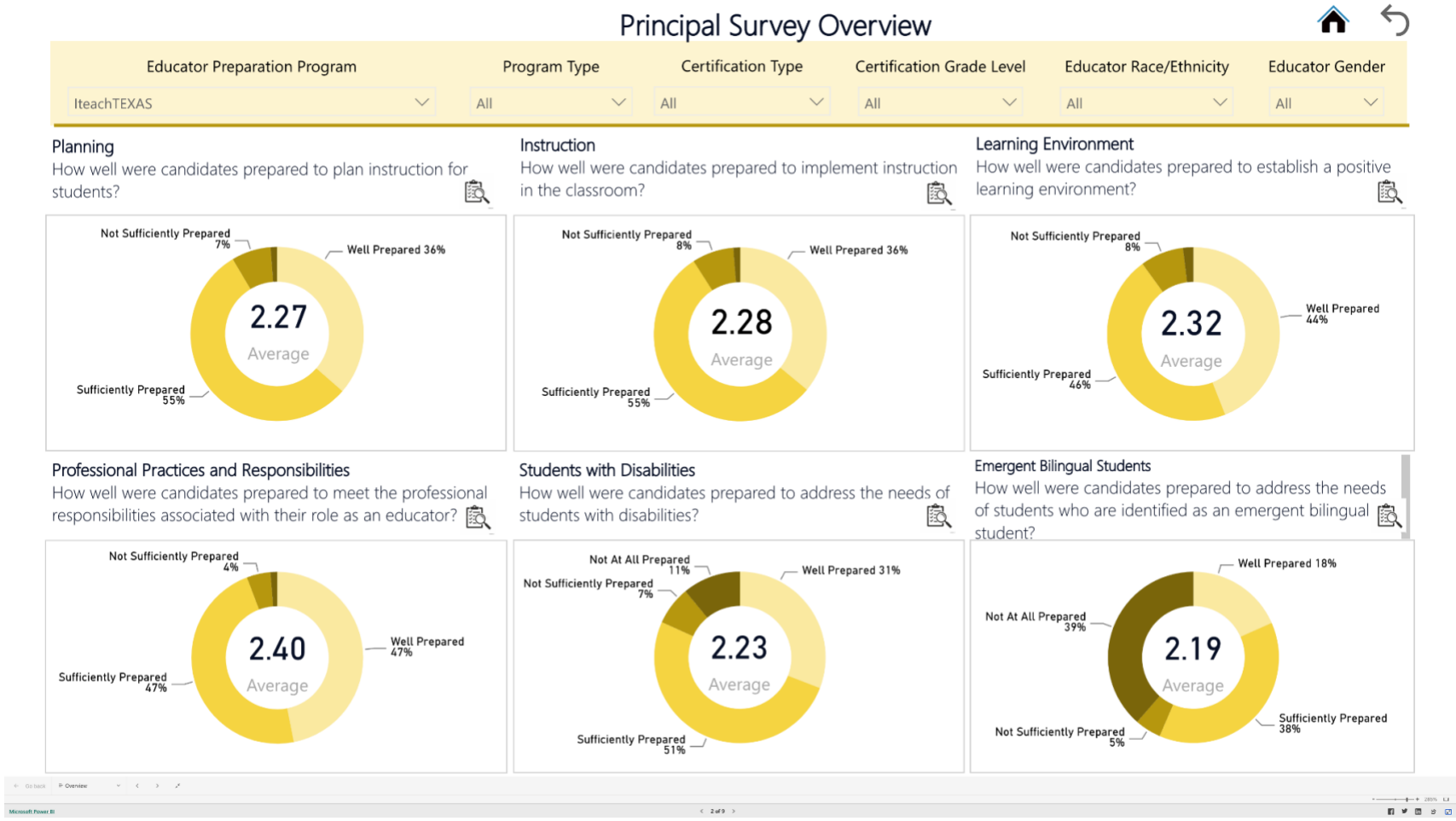
4.4 Average Star Rating (out of 5)

Q2. How do you feel the iteach teacher candidate(s) was prepared in the following areas when entering the classroom at the beginning of the school year?

Red - Ineffective, Yellow - Effective: Emerging, Green - Effective: Proficient, Blue - Highly Effective



Source 3: Texas Education Agency Survey, SY 2021-2022 (Campus Administrators)

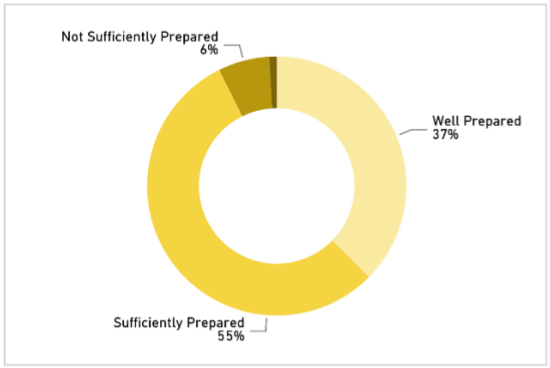


Overview Page

Planning

Educator Preparation Program	Program Type	Certification Type	Certification Grade Level	Educator Race/Ethnicity	Educator Gender
IteachTEXAS	All	All	All	All	All

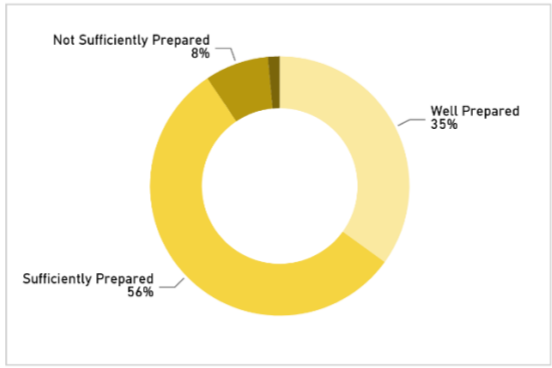
2.29
Average Score of Standards and Alignment



Standards and Alignment

To what extent did the educator preparation program (EPP) prepare the educator to design lessons that use state content standards, reflect research-based practices, and meet the needs of students?

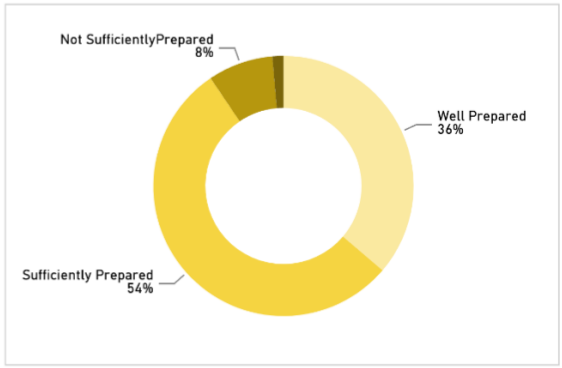
2.24
Average Score of Data and Assessment



Data and Assessments

To what extent did the EPP prepare the educator to collect and use a variety of student data to plan instruction and provide appropriate feedback to students and families?

2.25
Average Score of Activities



Activities

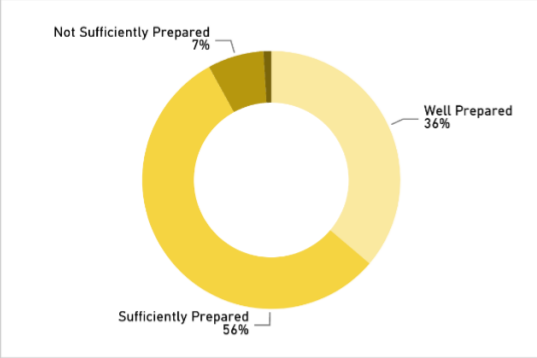
To what extent did the EPP prepare the educator to encourage students to persist when learning is difficult and complex thinking, use student instructional groups, and align resources with instructional purposes?

Overview Page

Instruction

Educator Preparation Program	Program Type	Certification Type	Certification Grade Level	Educator Race/Ethnicity	Educator Gender
IteachTEXAS	All	All	All	All	All

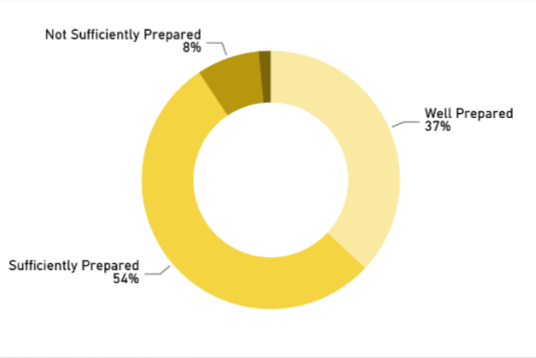
2.27
Average Score of Content Knowledge and Expertise



Content Knowledge and Expertise

To what extent did the educator preparation program (EPP) prepare the educator to use content-specific pedagogy, explain content accurately to students, and connect content across other learning disciplines?

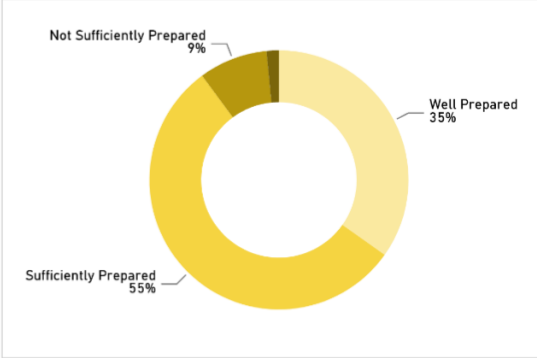
2.26
Average Score of Differentiation



Differentiation

To what extent did the EPP prepare the educator to differentiate instruction, monitor the quality of student participation, and work with a diverse community stakeholders?

2.23
Average Score of Monitor and Adjust



Monitor and Adjust

To what extent did your EPP prepare the educator to collect and use student progress data, maintain student engagement by adjusting instruction, and pace lessons appropriately?

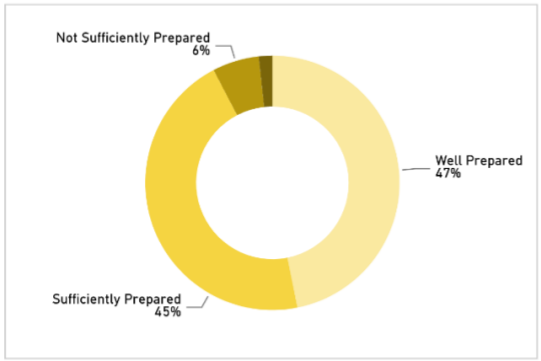
Overview Page

Learning Environment

Educator Preparation Program	Program Type	Certification Type	Certification Grade Level	Educator Race/Ethnicity	Educator Gender
IteachTEXAS	All	All	All	All	All

2.37

Average Score of Classroom Environment, Routines and ...

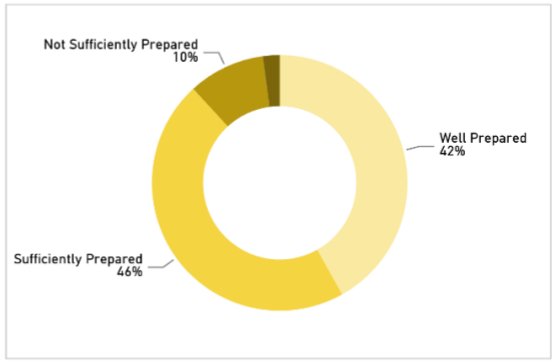


Classroom Environment, Routines and Procedures

To what extent did the educator preparation program (EPP) prepare the educator to organize a safe classroom through clear and efficient procedures and routines?

2.28

Average Score of Managing Student Behavior



Managing Student Behavior

To what extent did the EPP prepare the educator to establish and maintain clear expectations for student behavior in the classroom?

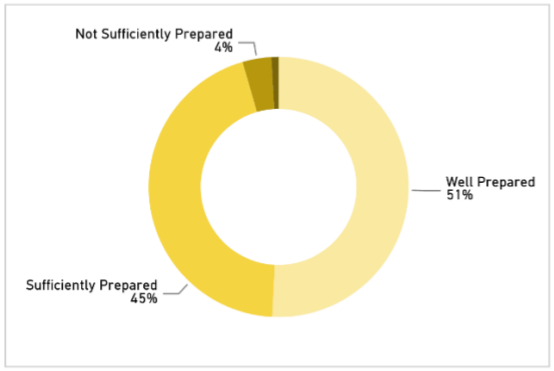
Overview Page

Professional Practices & Responsibilities

Educator Preparation Program	Program Type	Certification Type	Certification Grade Level	Educator Race/Ethnicity	Educator Gender
IteachTEXAS	All	All	All	All	All

2.45

Average Score of Professional Demeanor and Ethics

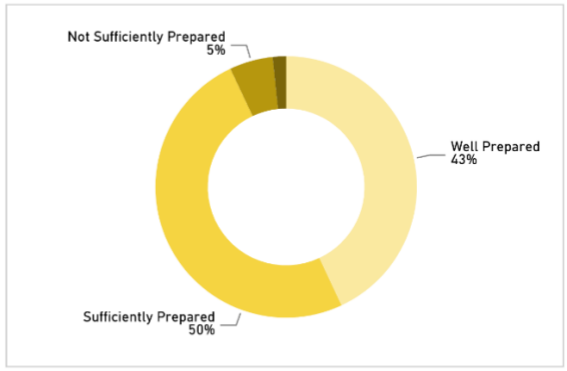


Professional Demeanor and Ethics

To what extent did the educator preparation program (EPP) prepare the educator to follow district expectations for professional standards, adhere to the Code of Ethics and Standard Practices for Texas Educators, and advocate for the needs of students?

2.34

Average Score of Goal Setting



Goal Setting

To what extent did the EPP prepare the educator to reflect on strengths and professional learning needs, use data to set goals, and prioritize goals to improve professional practice?

Overview Page

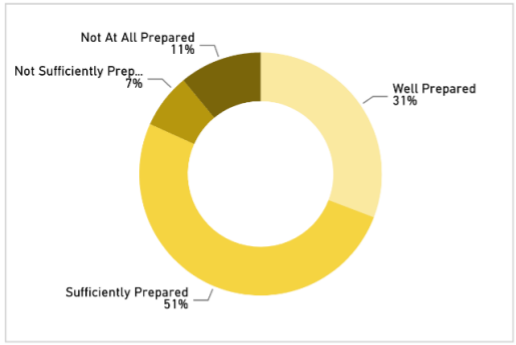
Students with Disabilities & English Language Learners

Educator Preparation Program	Program Type	Certification Type	Certification Grade Level	Educator Race/Ethnicity	Educator Gender
IteachTEXAS	All	All	All	All	All

Students with Disabilities

2.23

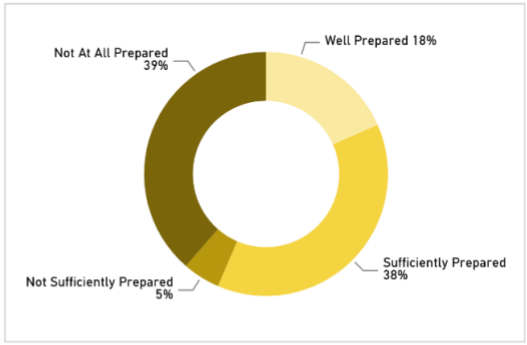
Average Score of Students with Disabilities Category



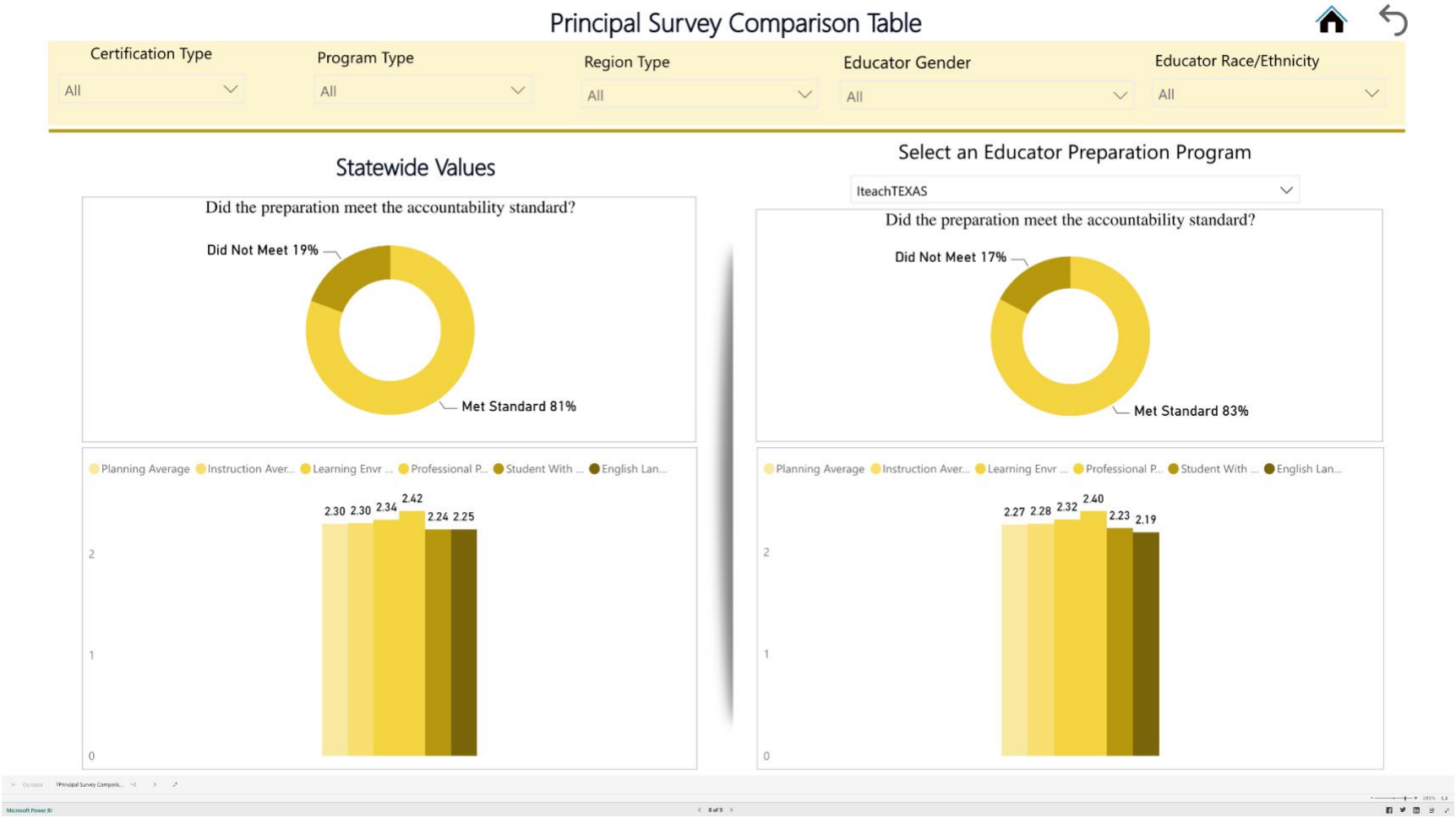
Emergent Bilingual Students

2.19

Average Score of Emergent Bilingual Students Category



Per the guidance in Texas statute, principals identify teachers who work with students with disabilities and emergent bilingual student in order to rate their preparation to work with these students. Questions in these sections are only displayed if the principal specifies that the teacher worked with either or both of these populations. If the survey sections are not displayed, no data are collected. Only surveys with complete data are used to determine whether an individual met the ASEP standard.



This is a comparison between the iteach program in Texas and the statewide average.

Educator Preparation Pathways Study

iteach Response

Summary

Claim

- Key recommendation is to “create more accessible and affordable university-based pathways to teacher certification” (Fitzpatrick et al., 2022, p. 5).

Rebuttals

- The study was solely conducted by members of Institutions of Higher Education. No representative from non-traditional alternative certification was included in the steering committee or research team.
- Majority of alternative certification completers in the study were from one program: A+ Texas Teachers of Tomorrow (43%).
- A+ Texas Teachers of Tomorrow are currently on probation from Texas Education Agency (TEA) and have filed a restraining order against the TEA and Commissioner of Education.
    - A state audit from 2021 found “substantial issues with the operations of Texas Teachers of Tomorrow” (Donaldson et al., 2022)
- iteach trained nearly twice as many STEM teachers as the University of Texas trained in total (all content areas), helping meeting workforce demands.
- When asked which alternative certification program administrators prefer to hire, 93% responded “iteach” and 97% would hire another iteach teacher.
- iteach maintains strict guidelines on content area placement ensuring compatibility and success in the classroom, while A+ Texas Teachers allows for open placement regardless of degree, college credit, or experience.

Conclusion

- iteach agrees with the study’s authors' sentiment, “Undoubtedly, there are highly effective university-based programs and alternative certification programs” (Fitzpatrick et al., 2022, p. 3).

Full Rebuttal

In June 2022, the University of Texas at Austin and Educate Texas published the *Texas Educator Preparation Pathways Study (TEPP Study)*. One of the key recommendations from this study is to "create more accessible and affordable university-based pathways to teacher certification" (Fitzpatrick et al., 2022, p. 5). The following pages of the study detail the deficiencies the researchers found in alternative certification programs, especially when compared to their university-based counterparts. We, at iteach, feel that this study lacks the full context of the educator program pathways in the state and, thus, arrives at short-sighted recommendations.

To begin, a study conducted within the college of education at a university concluding that universities should be the preferred option for educator preparation elicits questions of conflicts of interest. This is certainly seen in the composure of the Steering Committee Members and the Lead Researchers. Both groups neglect to include any representation from alternative teacher certification pathways. Of the two groups, there is one individual not currently employed at an institution of higher education, Celina Estrada Thomas, Superintendent of Hutto ISD. However, Dr. Thomas did earn her teacher certification and two graduate degrees from the University of Texas at Austin.

In looking at the data, a significant piece of needed context is absent throughout all data and conclusions made by researchers: during the time of this longitudinal study, the majority of all alternatively certified teachers completed one program: A+ Texas Teachers. Unfortunately, the researchers did not articulate their methodology of participant selection, but by any measure, their sample size of alternatively trained teachers would be skewed highly toward A+ Texas Teacher candidates. Over the duration of this study, A+ Texas Teachers, on average, trained 43% of alternatively certified teachers. This percentage has only grown in recent years, having recently obtained 53%. During the same time period, <10% of alternatively trained teachers completed the iteach program.

This is significant to the study when understanding the quality of A+ Texas Teachers. The lack of program integrity and quality training has culminated in significant reprimands from Texas Education Agency (TEA). In fact, TEA recommended to the state oversight board to revoke their ability to operate. A state audit from 2021 found “substantial issues with the operations of Texas Teachers of Tomorrow” (Donaldson et al., 2022). Some of the identified issues include misleading marketing, insufficient classroom support, and lacking evidence of a research-based curriculum. For the past two consecutive years (and many more over the course of this study), A+ Texas Teachers have been on probation from TEA.

Because of their size (the number of teachers trained), the data for all alternative certification programs is tremendously skewed. If you remove the 62,000 teachers who have completed their program from the available population from which to draw this study’s sample, the conclusions would significantly shift.

In a recent, anonymous, survey that iteach sent to partnering campus administrators (those with first-hand experience with iteach candidates), we received the following feedback. When asked, if given a choice, which alternative certification program they would prefer to hire from, 93% responded “iteach.” When asked if they would hire another iteach teacher candidate in their school, 97% responded, “Yes.”

The TEPP study also reached conclusions about teacher retention showing that over nine years traditional teachers will remain in the classroom at a higher percentage than alternatively certified teachers. The chart in the study seems to illustrate this apparent deficiency with alternative certification programs clearly (Fitzpatrick et al., 2022, p. 21). However, this chart actually highlights a key attribute and benefit of alternative certification programs. That is, beginning in year one, alternative certification programs place nearly 100% of their teachers in the classroom. In year two, it is close to 90% placement. Conversely, traditional programs take up to four years to fully deploy teachers to the workforce and never reach a placement rate as high as alternatively trained teachers. The study also fails to contemplate the limited

geographical diversity of traditional programs, as traditional teacher candidates must complete the certification within reasonable proximity to the institution. Alternative certification programs provide affordable access across geographies and ensure that even rural areas are provided with highly effective teachers. Given the current teacher shortage crisis, meeting the needs of the workforce cannot be overstated.

To that end, traditional programs are not only failing to meet the needs of the classroom based on overall placement but also looking at the distribution of content areas in which the different programs train (Byson, 2023, Jones, 2022, Masters, 2022, Pauly, 20023, Pelfer 2022, Stith, 2022, Tamez-Robledo, 2023). During the last reporting year (2021-2022), the University of Texas at Austin produced 351 certified teachers. 33% of those teachers were Elementary (Generalist) teachers, while 12% were STEM teachers (TPEIR, 2023). During the same year, 28% of iteach completers were Elementary teachers, and 20% were STEM teachers (TPEIR, 2023). In fact, iteach trained nearly twice as many STEM teachers as the University of Texas trained in total (all content areas). The failure to include the subject areas of A+ Texas Teachers is also evident with regard to student achievement by subject area. A+ Texas Teachers allows all their teacher candidates to test in any content area they want to seek a job in any area. Conversely, iteach has strict procedures during our admission process to identify content areas that best align with the teacher candidate's college experience, credits, and degree. By maintaining this process, we ensure formal education in content knowledge is evident prior to entering the classroom.

I share the same sentiment with Dr. Martinez Jr. and Mr. Fitzpatrick as they wrote in their introduction of this study: "Undoubtedly, there are highly effective university-based programs and alternative certification programs" (Fitzpatrick et al., 2022, p. 3). While this study, unfortunately, didn't differentiate between alternative certification programs, iteach has numerous data measures to support our distinction among the highly effective routes in the state.

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Coursework Deficiencies

The recommendation to the Board of Education (on 4/20/23) included coursework deficiencies specific to the methodological coursework. The following charts demonstrate that each condition is satisfied by the iteach coursework.

Detailed Course Deficiencies suggested by review panel.	iteach Course Satisfying VAC Course Requirements

Elementary

methods in teaching elementary mathematics course (3 semester hours)	CCVA 9003: Teaching Elementary Math
methods in teaching elementary science course (3 semester hours)	CCVA 9004: Teaching Elementary Science
methods in teaching elementary history and social sciences course (3 semester hours)	CCVA 9005: Teaching Elementary Social Studies
language acquisition (3 semester hours)	CCVA 9002: Teaching Elementary English
reading and writing (3 semester hours)	TCVA 6004: Responsive Literacy Instruction in the Elementary Classroom

Middle School

language acquisition and reading development (3 semester hours)	TCVA 6005: Critical Reading and Writing Instruction
literacy in the content areas: (3 semester hours)	TCVA 5400: Literacy, 21st Century Instruction, Pedagogical Content Knowledge

For complete detail of coursework alignment to administrative code, standards and competencies, please see the following matrix.

8VAC20-543-120: Elementary Education PreK-6

The iteachVIRGINIA program in elementary education PreK-6 requires that the candidate demonstrate competency in the follow areas:

Virginia Competencies	iteach Courses
1. Methods	**Professional Courses** The purpose of the iteach Professional course sequence is to equip pre-service and early service teachers to have a positive impact on student learning by demonstrating competence in professional domains of the teaching profession. ● TCVA 5100: Learning Environments ● TCVA 5200: Learner Development ● TCVA 5300: Planning for Instruction and Assessment ● TCVA 5400: Literacy, 21st Century Instruction, Pedagogical Content Knowledge ● TCVA 5500: Learner Differences and Adaptations for Students with Disabilities ● TCVA 5600: Diverse Populations, English Learners, and Bilingual Learners **Literacy Courses** The purpose of the iteach Literacy courses is to prepare pre-service and early service teachers to develop a deep understanding of the science of teaching reading and the research-based instructional practices used to teach reading and writing in the K-3 & 4-8 classroom. ● TCVA 6004: Responsive Literacy Instruction in the Elementary Classroom ● TCVA 6005: Critical Reading and Writing Instruction **Methods Courses** The purpose of the iteach Methods courses is to equip new teachers with the knowledge and skills to craft and implement engaging learning experiences for students. Embedded and guided by content standards, the courses leverage critical and creative thinking as well as differentiation, assessment, and multi-disciplinary connections. Methodology and content knowledge combine to ensure students are able to access the curriculum in a meaningful way that yields mastery. ● CCVA 9002: Teaching Elementary English ● CCVA 9003: Teaching Elementary Math ● CCVA 9004: Teaching Elementary Science ● CCVA 9005: Teaching Elementary Social Studies

a. Understanding of the needed knowledge, skills, dispositions, and processes to support learners in achievement of Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Standards of Learning in English, mathematics, history and social science, science, and computer technology;	The instructional courses TCVA 5100-5600 and Methods courses CCVA 9002-9005 align with Virginia's Foundations Blocks of Learning: Comprehension Standards for four-year olds recognizing the value of early education as laying the foundation for future academic success. Virginia Standards of Learning are introduced in course TCVA 5300 and candidates are required to create lessons using the Virginia SOL standards. Courses CCVA 9002-9005 provide content specific knowledge in the areas of English, mathematics, history, and social science, science, and computer technology.
b. Understanding of current research on the brain, its role in learning, and implications for instruction;	In course TCVA 5200, pre-service and early service teachers learn about student development and research on the brain, including major theories of how learners learn; normal developmental characteristics for student age groups; factors impacting student readiness for learning, including motivation and self efficacy; and the importance of moving learners to higher orders of learning on Bloom's Taxonomy.
c. The ability to integrate English, mathematics, science, health, history and social sciences, art, music, drama, movement, and technology in learning experiences;	Course TCVA 5300 focuses on lesson planning using common models that differentiate between various instructional models integrating all subjects selecting the model best suited for the learning task into lesson planning. This instructional course will also equip preservice and early service teachers to develop deep understanding of all content areas, make connections across content, and apply content knowledge in meaningful ways. In TCVA 5400, teachers create an interdisciplinary lesson plan integrating English with other disciplines aligned with their teaching placement.
d. The use of differentiated instruction and flexible groupings to meet the needs of learners at different stages of development, abilities, and achievement;	In TCVA 5100, pre-service and early-service teachers learn how to create flexible learning environments that respond and meet the needs of all learners in the classroom. In TCVA 5300, pre-service and early service teachers write lesson objectives using planning models to differentiate between various instructional models and select the model best suited to the learning task. Special attention is given to the importance of differentiated instruction. Differentiated instruction is included as a means to ensure all students are able to access the curriculum in the TCVA 6004 and 6005 Literacy courses as well as the Methods courses CCVA 9002-9005.

e. The use of appropriate methods, including those in visual and performing arts, to help learners develop knowledge and basic skills, sustain intellectual curiosity, and problem solve;	In TCVA 5300**,** the teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.
f. The ability to utilize effective classroom and behavior management skills through methods that build responsibility and self-discipline promote self-regulation, and maintain a positive learning environment;	In TCVA 5100, pre-service and early service teachers understand the factors which contribute to positive, collaborative, active, safe, and motivating learning environments. Notably candidates learn the importance of: communication, classroom management; classroom layout and use of physical space; rules and procedures; preparing for the first day, and ethical behavior and compliance with FERPA (the Family Educational Rights and Privacy Act). TCVA 6004 includes components that focus on classroom culture, environment, classroom management, accountability and cultural relevance. Course CCVA 9002 focuses on how to establish a well managed class with routines where students are engaged in meaningful literacy activities.
g. The ability to modify and manage learning environments and experiences to meet the individual needs of children, including children with disabilities, gifted children, children who are English learners, and children with diverse cultural needs;	In TCVA 5100, teacher candidates learn how to create flexible learning environments that respond and support all learners in the classroom. These understandings intersect with TCVA 5600, where teachers learn how components and understanding of a student's culture and language in the classroom creates a welcoming learning environment. Teacher candidates will learn how their students' diverse backgrounds, including cultural, socioeconomic, and linguistic differences, will shape the students' classroom experience. Included in the course is a focused discussion of the teacher's role in facilitating language acquisition for English Language Learners (ELLs).

h. The ability to use formal and informal assessments to diagnose needs, plan and modify instruction, and record student progress;	In TCVA 5300, pre-service and early service teachers are introduced to assessment as any tool used to evaluate what students know. Additionally, a focus on limitations of assessment, including how to make use of formative assessment, assessment fairness and validity, and use and interpretation of assessment results to drive instruction. These skills are developed throughout TCVA 5400-5600. The importance of and how to implement formative and summative assessment practices that diagnose and analyze current states of learning to inform instruction are essential and are included in the Literacy courses (TCVA 6004 & 6005) as well as the Methods courses (CCVA 9002-9005).
i. A commitment to professional growth and development through reflection, collaboration, and continuous learning;	Teacher candidates include reflections in assignments throughout the iteach coursework. In TCVA 5100 specifically, teacher candidates learn the value of professional learning communities, collaboration and how working together supports continuous learning.
j. The ability to analyze, evaluate, and apply quantitative and qualitative research; and	Qualitative and quantitative research is included throughout the coursework for teacher candidates to develop the ability to analyze, evaluate, and apply to assignments and their practice. Course assignments provide the opportunity for candidates gather, review, analyze, interpret, and apply data.
k. Understanding of the Virginia Standards of Learning for Computer Technology and the ability to use technology as a tool for teaching, learning, research, and communication; and	The Virginia Standards of Learning for Computer Technology along with ISTE standards are introduced in course TCVA 5100 and reinforced and applied in all courses. The purpose of the instruction in TCVA 5400 is to help pre-service and early service teachers develop 21st-century skills—including literacy, technological proficiency, and an interdisciplinary approach to problems--that are appropriate to the content area of instruction in the classroom, with an emphasis on the special role of literacy in developing learners across all content areas. Additionally, this course will help teachers to understand how technology impacts the classroom and how it may be harnessed to boost, rather than distract, from learning in the classroom. Methods of engagement and differentiation are included to leverage the learning environment to maximize achievement for all students.

l. The ability to adapt task and interactions to maximize language development, conceptual understanding, and skill competence within each child's zone of proximal development.	The purpose of the instruction in TCVA 5200 is to help pre-service and early service teachers learn about student development, including major theories of how learners learn; normal developmental characteristics for student age groups; factors impacting student readiness for learning, including motivation and self efficacy; and the importance of moving learners to higher orders of learning on Bloom's taxonomy.

2. Knowledge and Skills	
a. Reading and English. Understanding of the content, knowledge, skills, and processes for teaching Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Standards of Learning for English, including communication (speaking, listening, and media literacy), reading, writing, and research and how these standards provide the core for teaching English in grades preK-6 or elementary licensure.	● TCVA 5400 Literacy, Pedagogical Content Knowledge ● TCVA 6004 Responsive Literacy Instruction in the Elementary Classroom ● TCVA 6005 Critical Reading and Writing Instruction, ● CCVA 9002 Teaching Elementary Methods Course These courses are designed to increase teacher knowledge base and give the teacher practical tools for teaching elementary English and Language Arts.
(1) Assessment and diagnostic teaching. The individual shall:	Course TCVA 6004 includes pre-assessments for use at the start of the year to diagnose student current learning levels in phonics, letter recognition, comprehension, fluency, reading level as well as ongoing formative assessments throughout the year including checklists, Specific Skills Rubrics, Running Records & Anecdotal notes. Teacher candidates know, understand, and use formal and informal assessment strategies to plan, evaluate and inform instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student. In TCVA 6005, candidates understand, select, and use appropriate assessments to gather evidence on primary/elementary students' language acquisitions and literacy development for instructional and accountability purposes. In CCVA 9002, candidates demonstrate knowledge, understanding, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student.

(a) Be proficient in the use of both formal and informal assessment as screening diagnostic, and progress monitoring measures for the components of reading: phonemic awareness, letter recognition, decoding, fluency, vocabulary, reading level, and comprehension; and	● TCVA 5400, Module 1: Grade level literacy expectations (Pre-K–3) ● CCVA 9002, Module 5: Intervention ● TCVA 6004, Module 1: Assessments to inform instruction ● TCVA 6005, Module 5: Standardized testing- preparing throughout the school year for elementary and middle school
(b) Be proficient in the ability to use diagnostic data to inform instruction for acceleration, intervention, remediation, and differentiation.	● TCVA 5400, Module 1: Orton Gillingham technique (K-1) and remedial support (Grades 2-4) ● TCVA 6004, Module 1: ○ Beginning year assessments to inform instructional decisions ○ Determine a student's strengths and weaknesses in multiple areas including grade level-readiness, letter recognition, phonological awareness, decoding, fluency,vocabulary, comprehension and writing ○ Formative assessments throughout the year to target students' ongoing needs (Remediation and acceleration) ● TCVA 6005, Module 5: Assessments with an emphasis on standardized testing for the intermediate and middle grades classroom.
(2) Communication: speaking, listening, and media literacy. The individual shall:	Teacher candidates use their knowledge and understanding of effective verbal, nonverbal, and media communication techniques to foster active inquiry in several courses. Numerous examples of Teaching Channel videos of teachers modeling communication strategies in the classroom are shared throughout the courses. In TCVA 5100 and TCVA 5400, technology standards are infused into the content and assignments. Teacher candidates learn how to integrate ISTE standards into learning experiences that teach communication skills including the ability to access, analyze, evaluate and create media. Teacher candidates create a Technology project in TCVA 5400 to demonstrate the ability to teach students how to use various forms of media to collaborate and communicate. In TCVA 6004, TCVA 6005, and CCVA 9002, teacher candidates learn how to create lessons and learning experiences that support the development of listening and speaking skills for their students.
(a) Be proficient in the knowledge, skills, and processes necessary for teaching communication, such as speaking, listening, and media literacy;	● TCVA 5100, Module 1: ISTE standards for Students and Teachers ● TCVA 5400, Module 4: Technology as a Teaching Tool

(b) Be proficient in developing students' phonological awareness skills;	● TCVA 5400, Module 1: Intro. to Literacy ● TCVA 6004, Module 4: Shared Reading and Formative Assessment – Phonological Awareness ● TCVA 9002, Module 1: Reading Instruction Prek-2
(c) Demonstrate the ability to teach students to identify the characteristics of and apply critical thinking to media messages and to facilitate students' proficiency in using various forms of media to collaborate and communicate;	● TCVA 5100, Module 1: ISTE standards for Students and Teachers ● TCVA 5400, Module 4: Technology as a Teaching Tool
(d) Demonstrate effective strategies for facilitating the learning of standard English by speakers of other languages and dialects; and	● TCVA 5600, Module 2: Intro to Literacy ● TCVA 6005, Module 4: Vocabulary & Strategies for English Learners ● CCVA 9002, Module 6: English Language Learners
(e) Demonstrate the ability to promote creative thinking and expression, such as through storytelling, drama, choral and oral reading.	● TCVA 5400, Module 1: Reader's Theater and choral reading ● TCVA 6004, Module 1: Creating a classroom environment that promotes creative expression through writing and reading ● TCVA 6005, Module 4: Interactive read-alouds ● CCVA 9002, Module 3: Writing Process - Creative writing beginning in K where children have the freedom and support to grow in a safe environment and take risks.
(3) Reading and literature. The individual shall:	In TCVA 5400, pre-service teachers understand that literacy is a foundational skill for every academic task. From reading a math word problem to writing a scientific hypothesis—even understanding the course syllabus requires literacy. This comprehensive course introduces everything needed to develop beginning readers and writers to more advanced readers and writers able to apply these skills into the content areas. The purpose of the course TCVA 6004 is to prepare pre-service and early service teachers to develop a deep understanding of the Science of Reading instructional practices used to teach reading and writing in the K-3 classroom. There will be an emphasis on looking at both traditional and next-generation read-aloud, shared reading, guided reading, and independent reading. Candidates will have the opportunity to compare these approaches and examine ways they can strike a balance between the approaches based on students' needs. In TCVA 6005, pre-service and early service teachers are prepared to develop a deep understanding of the research based instructional practices used to teach reading and writing in the intermediate and middle grades classroom.

	CCVA 9002 provides inservice teachers a deeper dive into literacy instruction including technology. Candidates demonstrate a high level of competence in use of English language arts and they know, understand, and use concepts from reading, language and child development, to teach reading, writing, speaking, viewing, listening, and thinking skills and to help students successfully apply their developing skills to many different situations, materials, and ideas.
(a) Be proficient in explicit and systematic phonics instruction, including an understanding of sound and symbol relationships, syllables, phonemes, morphemes, word analysis, and decoding skills;	● TCVA 5400, Module 1: Orton-Gillingham phonics ● CCVA 9002, Module 1: phonemic awareness, phonemes and phonics, word study, and vocabulary development ● TCVA 6004, Module 4: Phonological awareness - manipulating sounds of oral language
(b) Be proficient in strategies to increase vocabulary and concept development;	● TCVA 5400, Modules 1 & 2: Vocabulary Strategies (6th-12th grades) ● TCVA 6004, Module 2: Word Work and Vocabulary providing multiple exposure and words taught in context for a deeper understanding. ● TCVA 6005, Module 4 & 5: Vocabulary Enrichment and connecting to reading- anchor charts of unfamiliar words from text, focus on the importance of using standardized test language throughout the year ● CCVA 9002, Module 2: Inferences from texts ● CCVA 9002, Module 6: Supporting ELL with basic vocabulary in all subjects
(c) Be proficient in the structure of the English language, including an understanding of syntax and semantics;	● TCVA 5400, Module 1: Foundations of Literacy ● TCVA 6004, Module 4: word meaning ● CCVA 9002, Module 6: using visuals
(d) Be proficient in reading comprehension strategies for both fiction and nonfiction text, including questioning, predicting, inferencing, summarizing, clarifying, evaluating, and making connections;	● TCVA 5400, Modules 1 & 2: Comprehension strategies and background knowledge, fluency ● TCVA 6004, Module 4: Comprehension strategies ● TCVA 6005, Module 1: Responding to literature to show comprehension in a variety of ways ● CCVA 9002, Modules 1 & 2: Building on basic comprehension skills beginning to understand with a focus on fluency
(e) Demonstrate the ability to support students to read with fluency, accuracy, and meaningful expression (prosody);	● TCVA 5400, Module 1: Fluency, accuracy, and expression ● TCVA 6004, Module 4: Fluency and expression in read alouds ● CCVA 9002, Modules 1 & 2: Fluency - appropriate speed accuracy, and expression

(f) Demonstrate the ability to develop comprehension skills in all content areas;	● TCVA 5400, Modules 1 & 2: Comprehension in Content areas (grades 6-12) ● TCVA 6004, Module 2: Building background knowledge and making connections across the curriculum ● TCVA 6005, Module 1: Critical reading skills with appropriate note taking, text analysis, and evaluating information. ● CCVA 9002, Modules 1, 2, & 4: Reading for inquiry, asking meaningful questions
(f) Demonstrate the ability to develop comprehension skills in all content areas;	● TCVA 5400, Modules 1 & 2: Comprehension in content areas (grades 6-12) ● TCVA 6004, Module 2: Building background knowledge and making connections across the curriculum ● TCVA 6005, Module 1: Critical reading skills with appropriate note taking, text analysis, and evaluating information. ● CCVA 9002, Modules 1, 2 & 4: Reading for inquiry - asking meaningful questions
(g) Demonstrate the ability to foster appreciation of a variety of literature;	● TCVA 5400, Module 1: Classrooms with quality literature and independent reading ● TCVA 6004, Module 1: Creating literacy rich environments and culturally relevant text ● TCVA 6005, Module 1: Responding to quality literature ● CCVA 9002, Module 1 & 2:Quality literature for making predictions and visualization to confirm responses
(h) Understand the importance of promoting independent reading by selecting fiction and nonfiction texts of appropriate yet engaging topics and reading levels; and	● TCVA 5400, Module 1: (K-5) & Module 2: (6-12) ● TCVA 6004, Module 1: Establishing comfortable and inviting independent reading spaces ● TCVA 6004, Module 6: Independent reading in the primary classroom; holding students accountable and book choice ● TCVA 6005, Module 2: Creating independent reading expectations and routines for all grade levels through middle school ● CCVA 9002, Module 2 & 4: Establishing a reading block that allows for independent reading (Students learn to read best when they read often.)
(h) Understand the importance of promoting independent reading by selecting fiction and nonfiction texts of appropriate yet engaging topics and reading levels; and	● TCVA 5400, Module 1 (K-5) & Module 2 (6-12) ● TCVA 6004, Module 1: Establishing comfortable and inviting independent reading spaces ● TCVA 6004, Module 6: Independent reading in the primary classroom; holding students accountable and book choice ● TCVA 6005, Module 2: Creating independent reading expectations and routines for all grade levels through middle school ● CCVA 9002, Modules 2 & 4: Establishing a reading block that allows for independent reading (students learn to read best when they read often.)

(i) Demonstrate effective strategies for teaching students to view, interpret, analyze, and represent information and concepts in visual form with or without the spoken or written word.	● TCVA 6004**:** Metacognitive sketch strategies, anchor charts. ● TCVA 6005, Module 1: Analyze literature and respond in writing ● CCVA 9002, Module 2: Create classroom blogs
(4) Writing.	TCVA 5400, TCVA 6004, TCVA 6005, and CCVA 9002 Teacher candidates understand and use a variety of teaching strategies that encourage elementary students' development of writing skills including domains of composition and the writing process.
(a) Be proficient in the knowledge, skills, and processes necessary for teaching writing, including the domains of composing and written expression, usage and mechanics and the writing process of planning, drafting, revising, editing, and publishing;	● TCVA 5400, Module 1: Process writing beginning in Pre-K develops age appropriate writing and continues through 6th grade ● TCVA 6004, Module 7: Explicit instruction, independent writing and conferencing for revision and editing, rubric for evaluating writing ● TCVA 6005, Module 3: Mini lessons (grammar, punctuation,usage, word choice, rereading for revision, sentence structure, transitions and paragraphing) ● CCVA 9002, Module 3: The Writing Process (pre-writing, drafting, revising, editing, publishing and presentations)
(b) Understand the stages of spelling development, promoting the generalization of spelling study to writing, and be proficient in systematic spelling instruction, including awareness of the purpose and limitations of "invented spelling";	● TCVA 5400, Module 1: Includes spelling stages and invented spelling ● TCVA 5400, Module 2: spelling in the middle grades ● TCVA 6004, Module 3: Word work with familiar patterns (silent e), rules and word meaning ● TCVA 6005, Module 4: Spelling and Language acquisition
(c) Demonstrate the ability to teach students to write cohesively for a variety of purposes and to provide instruction on the writing process: planning, drafting, revising, editing, and publishing in the narrative, descriptive, persuasive, and explanative modes; and	● TCVA 5400, Module 1: Introduction to Literacy ● TCVA 6004, Module 7: Interactive writing ● TCVA 6005, Module 3: Integrate content areas ● CCVA 9002, Module 3: Writing Instruction
(d) Demonstrate the ability to facilitate student research and related skills such as accessing information, evaluating the validity of sources, citing sources, and synthesizing information.	● TCVA 5400, Module 3: ISTE digital literacy ● TCVA 6005, Module 3: Writing for research; research skills, credible sources, and writing in the content areas ● CCVA 9002, Module 4: Writing Instruction

(5) Technology. The individual shall demonstrate the ability to guide students in their use of technology for both process and product as they work with reading, writing, and research.	● TCVA 5400, Module 3: Technology as a teaching tool ● TCVA 5400, Module 5: Technology Pedagogical knowledge and capabilities for teaching and learning ● TCVA 9002, Module 7: Integrating technology and methods of engagement and differentiation are included to leverage the learning environment to maximize achievement for all students in the area of reading, writing and research.
b. Mathematics.	TCVA 5400, TCVA 5600, and CCVA 9003 Teaching mathematics in the elementary school classroom in the 21st century requires a focus on critical thinking, problem solving, and conceptual understanding of mathematics content. The purpose of these courses is to provide candidates with the opportunity to gain an understanding of elementary mathematics content and elementary mathematics methods through exploring Virginia Foundation Blocks for Early Learning and the Virginia Standards of Learning Mathematical content standards as well as ACEI standards.
(1) Understanding of the mathematics relevant to the content identified in Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Standards of Learning and how the standards provide the foundation for teaching mathematics in grades preK-6. Experiences with practical applications and the use of appropriate technology and concrete materials should be used within the following content:	Mastery of the Virginia Foundation Blocks for Early Learning: Comprehensive standards for Four-Year-Olds and the Virginia Standards of Learning and additional applicable competencies are included in courses TCVA 5400 and CCVA 9003. In these courses, teacher candidates will know, understand, and use major mathematical concepts and procedures for building foundational mathematics. Beginning in Pre-K through 6th grade, content strands include Number and Number Sense; Computation and Estimation; Measurement and Geometry; Probability and Statistics; and Patterns, Functions and Algebra. In TCVA 5400, teachers will learn to develop rich mathematical classroom environments that support the five SOL process standard goals for students including becoming mathematical problem solvers, communicating mathematically, reasoning mathematically, making mathematical connections, and using mathematical representations to model and interpret practical situations. Practical situations include real-world problems and problems that model real-world situations. Additionally, course TCVA 5400 addresses the SOL 5 content standards: Numbers & Operations, Algebra, Geometry, Measurement, Data Analysis & Probability. The inservice teacher learns mathematical understanding, knowledge and skills that students should acquire beginning in prekindergarten through grade 12. The A-E standards are addressed in detail through the reading of professional articles, viewing and reflecting on professional

	videos from the Teaching Channel in iteach courses TCVA 5400 and CCVA 9002.
(a) Number systems and their structure, basic operations, and properties;	● TCVA 5400, Module 5 and developed further in CCVA 9003 Module 3: understanding specific grade level basic operations and properties standards, Module 5: Conceptual understanding of basic operations and number systems teaching more than facts and procedures
(b) Elementary number theory, ratio, proportion, and percent;	● TCVA 5400, Module 5 and developed further in CCVA 9003 Module 3: understanding specific grade level number theory, ratio, proportion and percent standards
(c) Algebra: fundamental idea of equality; operations with monomials and polynomials; algebraic fractions; linear and quadratic equations and inequalities and linear systems of equations and inequalities; radicals and exponents; arithmetic and geometric sequences and series; algebraic and trigonometric functions; and transformations among graphical, tabular, and symbolic forms of functions;	● TCVA 5400, Module 5 and developed further in CCVA 9003 Module 3: understanding specific grade level algebraic standards
(d) Geometry: geometric figures, their properties, relationships, and the Pythagorean Theorem; deductive and inductive reasoning; perimeter, area, and surface area of two-dimensional and three-dimensional figures; coordinate and transformational geometry; and constructions; and	● TCVA 5400 Module 5, and developed further in CCVA 9003 Module 3: understanding specific grade level Geometry standards
(e) Probability and statistics: permutations and combinations; experimental and theoretical probability; data collection and graphical representations including box-and-whisker plots; data analysis and interpretation for predictions; measures of center, spread of data, variability, range, and normal distribution.	● TCVA 5400, Module 5, and developed further in CCVA 9003 Module 3: understanding specific grade level probability and statistics standards
(2) Understanding of the sequential nature of mathematics and vertical progression of mathematical standards.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400 and CCVA 9002. In these courses, teacher candidates know, understand, and use the major concepts and procedures that define number and operations, algebra, geometry, measurement, data analysis, and probability based on the National Council of Teachers of Mathematics

	standards. In doing so teachers are taught to consistently engage problem-solving, reasoning and proof, communication, connections, and representation. The understanding that conceptual understanding is the foundation for comprehending procedural knowledge is essential included. This understanding supports vertical, sequential learning progressions and gradual mathematical learning. Candidates learn how to determine where the student last experienced success and to begin on that foundation to learn the next skill in the sequence. ● TCVA 5400, Module 5: Pedagogical Content Knowledge ● CCVA 9003, Module 3: Standards and Beyond
(3) Understanding of the multiple representations of mathematical concepts and procedures.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400 and CCVA 9002. In these courses, teacher candidates know, understand, and use the major concepts and procedures that define number and operations, algebra, geometry, measurement, data analysis, and probability. In doing so they consistently engage problem-solving, reasoning and proof, communication, connections, and representation. The understanding that there are multiple representations of mathematical concepts and procedures is emphasized. These multiple perspectives are celebrated in the classroom as varied ways to represent and solve problems. ● TCVA 5400, Module 5: Pedagogical Content Knowledge ● CCVA 9003, Module 2: Implementation of Mathematical Standards ● CCVA 9003, Module 3: Standards and Beyond
(4) Understanding of and the ability to use the five processes - reasoning mathematically, solving problems, communicating mathematics effectively, making mathematical connections, and using mathematical models and representations - at different levels of complexity.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400, CCVA 9002. In these courses, teacher candidates plan and implement instruction based on knowledge of the five mathematical processes to foster student learning theory, connections across the curriculum, curricular goals, and community. Teacher candidates understand the importance of crafting learning experiences that allow students to communicate their thinking, solutions, connections and representations of mathematical situations. ● TCVA 5400, Module 5: Pedagogical Content Knowledge ● CCVA 9003, Module 2: Implementation of Mathematics Instruction ● CCVA 9003, Module 3: Standards and Beyond ● CCVA 9003 Module 7: Problem Solving Strategies

(5) Understanding of the contributions of different cultures toward the development of mathematics and the role of mathematics in culture and society.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400, TCVA 5600 and CCVA 9002. In these courses teacher candidates engage in learning opportunities so they will understand how elementary students differ in their development and approaches to learning. Teachers will create instructional opportunities that are adapted to the culture of diverse students. ● TCVA 5400, Module 5: Pedagogical Content Knowledge ● TCVA 5600, Module 1: Culturally and Linguistically Responsive Teaching and Learning ● CCVA 9003, Module 1: Classroom Culture and Environment
(6) Understanding of the appropriate use of calculators and technology in the teaching and learning of mathematics, including virtual manipulatives.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400 and CCVA 9002. In these courses teacher candidates understand and use a variety of teaching strategies that leverage the use of calculators, virtual manipulatives, and technology to encourage elementary students' development of critical thinking and problem solving. For example, in TCVA 5400 candidates research technology tools and write an essay about integrating Technology and demonstrating use of technology in lesson planning. In CCVA 9002, the use of technology tools are reinforced. ● TCVA 5400, Module 3: Technology as a Teaching Tool ● CCVA 9003, Module 3:Virginia Standards of Learning for use of calculators and technology
(7) Understanding of and the ability to use strategies to teach mathematics to diverse learners.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400, TCVA 5600, and CCVA 9002. In these courses, teacher **c**andidates use their knowledge and understanding of culturally and linguistically responsive teaching among students at the K-6 level to foster active engagement in learning, self-motivation, and positive social interaction in mathematics and to create a supportive learning environment for all learners. Candidates develop the ability to respond to diverse learners using strategies that scaffolds their learning. ● TCVA 5400, Module 5: Pedagogical Content Knowledge ● TCVA 5600, Module 1: Culturally and Linguistically Responsive Teaching and Learning ● CCVA 9003, Module 1: Classroom Culture and Environment

c. History and social sciences.	Mastery of this standard and the applicable competencies are demonstrated in courses TCVA 5400, CCVA 9005. The purpose of these content History and Social Sciences courses is to provide the beginning elementary teacher an understanding of the place of History in the elementary curriculum and an understanding of the specific methods to achieve understanding in addition to the theoretical exploration of history and the direction of social sciences as a field of study. These courses focus on strategies and teaching tools that can help children engage in the content, build inquiry for critical thinking skills and allow for connections to the students' everyday lives.
(1) Understanding of the knowledge, skills, and processes of history and the social sciences disciplines as defined in Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Standards of Learning and how the standards provide the necessary foundation for teaching history and social sciences, including in:	Across the nation, social studies standards are typically organized into strands or dimensions. The most commonly used strands are History, Government/Civics, Geography, and Economics. The National Council for Social Studies (NCSS) created the C3 framework for states to use as they create their own teaching standards for social studies. The C3 Frameworks purpose is: *"intended to serve as a resource for states to consider as they upgrade their existing state social studies standards. The Framework provides guidance on the key concepts and skills students should develop through a robust social studies program of study, but intentionally does not address all of the elements states will need to consider in developing and upgrading standards."* The Framework outlines four categories within Dimension 2: Civics, Economics, Geography, and History. Teacher candidates will demonstrate essential content knowledge in key concepts of history, geography, civics, economics, culture, and society applicable to elementary studies. Additionally, the Teacher candidate will demonstrate the ability to use tools and technologies for organizing, analyzing, and interpreting social studies information. Courses TCVA 5400 and CCVA 9005 provide inservice teacher candidates with the opportunity to gain an understanding of elementary History and Social Sciences content and elementary methods through exploring Virginia Foundation Blocks for Early Learning and the 2023 Virginia Standards of Learning content standards telling a more complete story about how the past has shaped the commonwealth, the nation and the world.
(a) History.	● TCVA 5400, Module 4: The teacher will demonstrate essential content knowledge in key concepts of history, geography, civics, economics, culture and society applicable to elementary studies

	● CCVA 9005, Module 1: Pre-service teachers will learn that Historical thinking requires understanding and evaluating change and continuity over time, and making appropriate use of historical evidence in answering questions and developing arguments about the past… It involves locating and assessing historical sources of many different types to understand the contexts of given historical eras and the perspectives of different individuals and groups within geographic units that range from local to global. Historical thinking is a process of chronological reasoning, which means wrestling with issues of casualty, connections, significance, and context with the goal of developing credible explanations of historical events and developments based on reasoned interpretation of evidence. Content is presented via the course textbook, module readings, educational video clips, and linked ancillary materials. Learning is assessed with course quizzes, lesson plan, and article research assignments.
(i) The contributions of ancient civilizations to modern social and political institutions;	● TCVA 5400, Module 5: Pedagogical Content Knowledge- teacher develops understanding of contributions of ancient civilizations to modern social and political institutions- Time-line is introduced and established as a classroom visual to be added to throughout the year ● CCVA 9005 Module 3: SOLS for grade level specific and instructional strategies including Anchor Charts, research on topics, and complete graphic organizers
(ii) Major events in Virginia history from 1607 to the present;	● TCVA 5400 Module 5: Preservice teacher develops understanding of major events in Virginia history from 1607 to the present ● CCVA 9005, Module 2 introduces preservice teachers to the use of children's historical fiction, biographies and nonfiction literature. This allows students to make connections and go deeper in their understanding ● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all history is covered.
(iii) Key individuals, documents, and events in United States history; and	● TCVA 5400, Module 5: Preservice teacher develops an understanding of contributions of ancient civilizations to modern social and political and Module 3: Research skills of evaluating source quality in websites, magazines, textbooks, journals, newspapers along with media reports ● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all history is covered. Introduction of primary sources along with integration of technology as a way to research individuals and events in US

	history as well as review content knowledge in Quizlet, Kahoot, and Padlet
(iv) The evolution of America's constitutional republic and its ideas, institutions, and practices.	● TCVA 5400, Module 5: Pre-service teacher develops an understanding of the evolution of America's constitutional republic and its ideas, institutions, and practices ● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all history is covered ● CCVA 9005, Module 4: Integration Strategies; bringing literature into the lessons through historical texts and lots of different types of writing
(b) Geography.	CCVA 9005, Module 1: Pre-service teachers will learn that geographic reasoning requires using spatial and environmental perspectives, skills in asking and answering questions, and being able to apply geographic representations including maps, imagery, and geospatial technologies. A spatial perspective is about whereness. Where are people and things located? Why there? What are the consequences? An environmental perspective views people as living in interdependent relationships within diverse environments. Thinking geographically requires knowing that the world is a set of complex ecosystems interacting at multiple scales that structure the spatial patterns and processes that influence our daily lives. Geographic reasoning brings societies and nature under the lens of spatial analysis, and aids in personal and societal decision making and problem solving.
(i) The use of maps and other geographic representations, tools, and technologies to acquire, process, and report information;	● TCVA 5400, Module 5: Preservice teacher develops understanding of the use of maps and other geographic representations, tools, and technologies to acquire, process, and report information ● TCVA 5400, Module 6: Student engagement with geographic tools such as maps and graphs. ● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all geography is covered.
(ii) The relationship between human activity and the physical environment in the community and the world; and	● TCVA 5400, Module 5: Preservice teacher will understand and teach the relationship between human activity and the physical environment in the community and the world ● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered.
(iii) Physical processes that shape the surface of the earth.	● TCVA 5400, Module 5: Preservice teacher develops understanding and teaches the physical processes that shape the surface of the earth.

	● CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered.
(c) Civics.	CCVA 9005 Module 1: The preservice teacher will understand that in a constitutional democracy, productive civic engagement requires knowledge of the history, principles, and foundations of our American democracy, and the ability to participate in civic and democratic processes. People demonstrate civic engagement when they address public problems individually and collaboratively and when they maintain, strengthen and improve communities and societies. Because government is a means for addressing common or public problems, the political system established by the U.S. Constitution is an important subject of study within civics. Civics requires other knowledge too; students should also learn state and local governments; markets; courts and legal systems; civil society; other nations' systems and practices; international institutions; and techniques available to citizens for preserving and changing a society.
(i) The privileges and responsibilities of good citizenship and the importance of the rule of law for the protection of individual rights;	TCVA 5400, Module 5: Preservice teacher develops understanding of the privileges and responsibilities of good citizenship and the importance of the rule of law for the protection of individual rights CCVA 9005, Module 1: Debate complex concepts and Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered.
(ii) The process of making laws in the United States and the fundamental ideals and principles of a republican form of government;	TCVA 5400, Module 5: Preservice teacher develops understanding the process of making laws in the United States and the fundamental ideals and principles of a republican form of government CCVA 9005, Module 1: Strategies to engage learners acting out the process of making laws and a formal government and Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure standards are covered
(iii) The understanding that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by basic principles of a republican form of government and a common identity as Americans; and	TCVA 5400, Module 5: Preservice teacher develops understanding that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by basic principles of a republican form of government and a common identity as Americans CCVA 9005, Module 1: perform hands-on experiences and create anchor charts to show the information and Module 3: SOLS for grade level specific to make sure all standards are covered
(iv) Local government and civics instruction specific to Virginia.	TCVA 5400, Module 5: Preservice teacher develops understanding of local government and civics instruction specific to Virginia

	CCVA 9005, Module 1: KWL (Know, Want to know, What did you learn) to brainstorm what students already know about local government and civics specific to Virginia and Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered
(d) Economics.	CCVA 9005, Module:1 Pre Service teachers will learn that effective economic decision-making requires that students have a keen understanding of the ways in which individuals, businesses, governments, and societies make decisions to allocate human capital, physical capital, and natural resources among alternative uses. This economic reasoning process involves the consideration of costs and benefits with the ultimate goal of making decisions that will enable individuals and societies to be as well off as possible. The study of economics provides students with the concepts and tools necessary for an economic way of thinking and helps students understand the interaction of buyers and sellers in markets, workings of the national economy, and interactions within the global marketplace. Economics is grounded in knowledge about how people choose to use resources. Economic understanding helps individuals, businesses, governments, and societies choose what resources to devote to work, to school, and to leisure; how many dollars to spend, and how many to save; and how to make informed decisions in a wide variety of contexts. Economic reasoning and skillful use of economic tools draw upon a strong base of knowledge about human capital, land, investments, money, income and production, taxes, and government expenditures.
(i) The basic economic principles that underlie the United States market economy;	TCVA 5400, Module 5: Preservice teacher develops understanding of the basic economic principles that underlie the United States market economy CCVA 9005, Module 1: Create anchor charts as a class and post in the classroom as reference tool while learning is taking place and Module 3: SOLS for grade level specific to make sure all standards are covered
(ii) The role of the individual and how economic decisions are made in the market place; and	TCVA 5400, Module 5: Preservice teacher develops understanding of the role of the individual and how economic decisions are made in the marketplace CCVA 9005, Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered
(iii) The role of government in the structure of the United States economy.	TCVA 5400, Module 5: Preservice teacher develops understanding the role of government in the structure of the United States economy

	CCVA 9004, Module 1: Acting out the structure of the government and the roles Module 3: SOLS for grade level specific and reviewing the scope and sequence to make sure all standards are covered
(2) Understanding of the nature of history and social sciences and how the study of the disciplines assists students in developing historical thinking, geographical analysis, economic decision-making, and responsible citizenship by:	Teacher candidates will learn best practices for social studies to promote productive, inquiry-based learning. The CCVA 9005 methods course introduces teachers to Historical thinking that requires understanding and evaluating change and continuity over time and making appropriate use of historical evidence in answering questions and developing arguments from the past. Primary & secondary source documents are a key resource and teachers are instructed to engage students in learning using strategies such as debate, act it out, perform hands-on experiences, artifacts, and creating visuals. Throughout the course a focus on good citizenship skills is implemented and addressed in articles, videos, and assignments.
(a) Using artifacts and primary and secondary sources to understand events in history;	● CCVA 9005, Module 1: Using artifacts, primary and secondary sources- preservice teacher learns to use many types of primary and secondary sources understanding that students are engaged and allow students to use critical thinking skills which leads to deeper thinking
(b) Using geographic skills to explain the interaction of people, places, and events to support an understanding of events in history;	● CCVA 9005, Module 1: Geography Skills and Strategies
(c) Using charts, graphs, and pictures to determine characteristics of people, places, and events in history;	● CCVA 9005, Module 1: Anchor Charts, graphs, graphic organizers as instructional strategies to determine characteristics of people, places, and events in history
(d) Asking appropriate questions and summarizing points to answer a question;	● CCVA 9005, Module 2: Inquiry and Summarizing information
(e) Comparing and contrasting people, places, and events in history;	● CCVA 9005, Module 1: Anchor Charts to compare and contrast people, places and events in history
(f) Recognizing direct cause and effect relationships in history;	● CCVA 9005, Module 1: Create Venn Diagram showing cause and effect and relationships in history
(g) Explaining connections across time and place;	● CCVA 9005, Module 1: Timelines as visuals and pictures to provide more information
(h) Using a decision-making model to identify costs and benefits of a specific choice made;	● CCVA 9005, Module 1: Project based learning to model decision making to identify costs and benefits of a specific choice made

(i) Practicing good citizenship skills and respect for rules and laws, and participating in classroom activities; and	● CCVA 9005, Module 1: Civic Virtue- acting out in history and in everyday life
(j) Developing fluency in content vocabulary and comprehension of verbal, written, and visual sources.	● CCVA 9005, Module 2: Language Arts and Social Sciences and history intergration
d. Science.	TCVA 5400 and CCVA 9004: Teaching Elementary Science In TCVA 5400, teacher candidates learn foundational knowledge regarding interdisciplinary lesson planning, differentiation and how to integrate technology into the science curriculum. The primary ideas underlying CCVA 9004 are using an inquiry-based approach to promote problem solving and a deep understanding of science content while embedding science process skills with science concepts. The 5E Instructional Model is emphasized for planning and instruction while various methods of assessment are addressed. The course provides a series of assignments and assessments designed to help the learner construct knowledge about how to use the instructional practices presented. Content is presented via the course textbook, module readings, educational video clips, and linked ancillary materials. Learning is assessed with course quizzes, lesson plan, and article research assignments.
(1) Understanding of the knowledge, skills, and practices of the four core science disciplines of Earth science, biology, chemistry, and physics as defined in Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Science Standards of Learning and how these standards provide a sound foundation for teaching science in the elementary grades.	The purpose of this Science Methods CCVA 9004 is to prepare pre-service and early-service teachers to develop a deep understanding of the best instructional practices used to teach science in primary and intermediate classrooms. Virginia Foundation Blocks for Early Learning and the 2023 Virginia Standards of Learning content standards are introduced so teachers can be an effective science educator. One must understand what science is and how it works. In this course there will be an emphasis on using science process skills to promote curiosity and problem solving abilities that will assist students in their science understanding as well as in their daily lives.
(2) Understanding of the nature of science and scientific inquiry, including the following:	Course TCVA 5400, Module 4: Mastery of the Virginia standard and its competencies is demonstrated in synthesizing the learning about inquiry-based science teaching and learning. In course CCVA 9004, the Nature of Science (NOS) is a main focus. Teacher candidates are expected to know how to engage elementary students in the science inquiry process that includes questioning, planning, and conducting investigations, gathering

	data, constructing explanations and communicating ideas. Basic Science process skills (observation, communication, classifying, inferring, measuring and predicting) are introduced in articles and videos and mastery is assessed in assignments and lesson planning.
(a) Function of research design and experimentation;	● CCVA 9004, Module 1: Science Process Skills and Content. Foundations of Science Instruction readings.
(b) Role and nature of the theory in explaining and predicting events and phenomena;	● CCVA 9004, Module 1: Science Process Skills and Content Foundations of Science Instruction readings.
(c) Practices required to provide empirical answers to research questions, including data collection and analysis, modeling, argumentation with evidence, and constructing explanations;	● CCVA 9004, Module 1: Science Process Skills and Content Foundations of Science Instruction readings.
(d) Reliability of scientific knowledge and its constant scrutiny and refinement;	● CCVA 9004, Module 1: Science Process Skills and Content Foundations of Science Instruction readings.
(e) Self-checking mechanisms used by science to increase objectivity, including peer review; and	● CCVA 9004, Module 1: Science Process Skills and Content Foundations of Science Instruction readings.
(f) Assumptions, influencing conditions, and limits of empirical knowledge.	● CCVA 9004, Module 1: Science Process Skills and Content Foundations of Science Instruction readings.
(3) Understanding of the knowledge, skills, and practices for conducting an active elementary science program including the ability to:	TCVA 5400 and CCVA 9004: Teaching Elementary Science One of the most vital student outcomes in all classrooms should be meaningful learning. To attain meaningful learning, multiple methods and patterns of inquiry-based instruction are necessary and unavoidable as they provide rich and meaningful learning experiences for all students. This being noted, there are a variety of methods of instructional planning and delivery that can be used when teaching children science through inquiry. Inquiry-based science takes on an active and engaging exploratory approach. Students have a working role in learning with the purpose of discovery and extending knowledge. Included in this role is the importance of safety. To provide teachers with evidence of students' learning and to drive the instruction, both formative and summative assessments are necessary. Teachers are taught how to determine the criteria that is the best method of assessment. Mastery of this Standard and the applicable competencies is demonstrated in Assessment using the Virginia Standards of Learning.

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(d) Conduct systematic field investigations using the school grounds, the community, and regional resources;	● TCVA 5400, Module 4: Interdisciplinary Instruction - Science Inquiry Lesson Plan ● CCVA 9004, Module 2: Inquiry-Based Science - Science Inquiry Lesson Plan
(e) Organize key science content, skills, and practices into meaningful units of instruction that actively engage students in learning;	● TCVA 5400, Module 4: Interdisciplinary Instruction - Science Inquiry Lesson Plan ● CCVA 9004, Module 2: Inquiry-Based Science - Science Inquiry Lesson Plan ● CCVA 9004, Module 3: The 5E Instructional Model - Science Inquiry Lesson Plan
(f) Design instruction to meet the needs of diverse learners using a variety of techniques;	● TCVA 5400, Module 5: Pedagogical Content Knowledge-Differentiation - Science Inquiry Lesson Plan ● CCVA 9004, Module 2: Inquiry-Based Science - Science Inquiry Lesson Plan
(g) Evaluate instructional materials, technologies, and teaching practices;	● TCVA 5400, Module 5: Pedagogical Content Knowledge - Technology project ● CCVA 9004, Module 3: The 5E Instructional Model
(h) Conduct formative and summative assessments of student learning;	● CCVA 9004, Module 4: Assessing Science Learning - Formative and summative assessments of inquiry - based lessons
(i) Incorporate instructional technology to enhance student performance in science; and	● TCVA 5400, Module 3: Instructional Technology - Integrate technology into lesson plan to support student learning in science
(j) Ensure student competence in science.	● CCVA 9004, Module 4: Assessing Science Learning - Various applications of assessments to measure science mastery
(4) Understanding of the content, skills, and practices of the four core science areas, including Earth sciences, biology, chemistry, and physics supporting the teaching of preK-6 science as defined by the Virginia Science Standards of Learning and equivalent course work reflecting each of the four core science areas.	CCVA 9004: Teaching Elementary Science Teacher candidates plan science lessons and create experiences in the four core science areas to introduce students to understandings about science. They understand common misconceptions that children have about science and help them build understandings. The 5E Model is an inquiry-based, student-centered learning cycle used to support teaching and learning. It is a user-friendly model that follows the natural way that we think about and solve problems in our daily lives. The model requires students to: engage, explore, explain, elaborate/extend, and evaluate. Mastery of this Virginia standard and the applicable competencies is demonstrated in: Determining where Lessons/Activities fit into

	the 5E cycle and planning a lesson using the 5E Instructional Model.
(5) Understanding of the core scientific disciplines of Earth science, biology, chemistry, and physics to ensure:	Course TCVA 5400: 21st Century Instruction, Pedagogical Content Knowledge and CCVA Course 9004 Teaching Elementary Science Teacher candidates will be shown the importance for students to understand what science is and how it works, the processes must be embedded within the content. Science educators should continuously keep in mind that by teaching students the content and processes together, they are teaching students skills that will be used in life. As educators, the responsibility of modeling inquisitiveness, ingenuity, and enthusiasm in science fosters students' valuing and appreciating science and desiring to learn more. Mastery of this Virginia standard and its applicable competencies is demonstrated in Assignment 3: Using Assessments in Science – Applying summative and formative assessment to a science lesson.
(a) The placement of the four core scientific disciplines in an appropriate interdisciplinary context;	● TCVA 5400, Module 4: Interdisciplinary/Multidisciplinary Lesson Plan ● CCVA 9004, Module 1: Science Process Skills and Content; Knowing the Science Content; Foundations of Science Instruction readings
(b) The ability to teach the skills, practices, and crosscutting concepts common to the natural and physical sciences;	● CCVA 9004, Module 1: Science Process Skills and Content; Knowing the Science Content
(c) The application of key science principles to solve practical problems; and	● CCVA 9004, Module 2: Inquiry-based science; science process skills
(d) A "systems" understanding of the natural world.	● CCVA 9004, Module 1: Science process skills and content ; knowing the science content
(6) Understanding of the contributions and significance of science including:	Course CCVA 9004: Teaching Elementary Science Teachers are taught in the science methods course that in learning science, students must come to understand both the body of knowledge and the process by which this knowledge is established, extended, refined, and revised. When teaching science, the goal should be to not only develop science vocabulary and understanding of concepts, but to develop critical thinking and inquiry ability as well as understand the historical impact of science. Although the science content standards may

	vary from grade to grade and state to state, it is important for students to understand and use process skills when learning science. Process skills must be embedded in each science lesson to help students make sense of the world around them and understand the systematic ways that scientists make discoveries and solve problems. However, even the most basic science process skills are used to learn and understand science throughout a student's science education and lifetime. As Padilla wrote, Science – A Process Approach (SAPA), grouped the science process skills into basic (simpler) and integrated (more complex) process skills.
(a) Its social, cultural, and economic significance;	● CCVA 9004, Module 1: Science process skills and content; knowing the science content
(b) The relationship of science to mathematics, the design process, and technology; and	● CCVA 9004, Module 1: Science process skills and content ; knowing the science content
(c) The historical development of scientific concepts and scientific reasoning.	● CCVA 9004, Module 1: Science process skills and content ; knowing the science content