I. Summary:

CS/SB 1568 modifies Florida’s career and technical education program to improve and expand apprenticeship and preapprenticeship programs, provide supports for students in work-based learning programs, specify career education requirements for middle school promotion and high school graduation, modify funding incentives for industry certifications, and provide relevant mathematics pathways. Specifically, the bill:

- Broadens the scope of apprenticeship and preapprenticeship programs (programs) to additional apprenticeship program sponsors (sponsors) and occupations, and:
  - Specifies that programs lead toward occupations, rather than trades.
  - Clarifies that sponsors are responsible for program supervision, subject to uniform minimum standards developed by the Department of Education (DOE).
  - Includes state universities as partners in the provision of apprenticeship instruction.
  - Clarifies the duties of the DOE regarding apprenticeship and preapprenticeship programs.
  - Revises the membership and scope of the State Apprenticeship Advisory Council.
  - Changes the selection criteria and use of funds for the Florida Pathways to Career Opportunities Grant Program.

- Specifies that students in a preapprenticeship program or courses with a work-based component are deemed to be employees of the state for workers’ compensation purposes for medically necessary care only.

- Modifies provisions related to elementary and secondary career education to:
  - Make optional the middle school course in career and education planning, and authorizes the Florida Virtual School to offer the course.
o Authorize school districts and regional consortia to work with national providers to submit career-themed courses for approval.
o Modify the requirement for computer science instruction in elementary school, and expand the use of computer science teacher incentive funds.

- Changes provisions related to Career and Professional Education (CAPE) industry certifications by:
  o Clarifying Commissioner of Education authority regarding CAPE industry certifications and CAPE Digital Tool Certificates.
  o Modifying the award and use of CAPE industry certification bonus funds relating to credit awarded under statewide articulation agreements.
  o Providing bonus funds for aviation and aerospace industry certifications.

- Requires the Articulation Coordinating Committee to identify mathematics pathways aligned to programs, meta-majors, and careers.

The fiscal impact is discussed in section V.

The bill takes effect on July 1, 2020.

II. Present Situation:

The present situation for the relevant portions of the bill is discussed under the Effect of Proposed Changes of this bill analysis.

III. Effect of Proposed Changes:

Apprenticeship and Preapprenticeship Programs

The Florida Legislature has established educational opportunities for young people in the state to be trained for trades, occupations, and professions suited to their abilities.¹

Present Situation

The federal government works in cooperation with states to oversee the nation’s apprenticeship programs. States have the authority to register apprenticeship programs through federally-recognized State Apprenticeship Agencies.² In Florida, the Department of Education (DOE) serves as the registering entity to ensure compliance with federal and state apprenticeship standards, provide technical assistance, and conduct quality assurance assessments.³

Apprenticeships and Preapprenticeships in Florida

Florida continues to promote apprenticeships in occupations throughout industry that require physical manipulative skills. By broadening job training opportunities and providing for increased coordination between public school academic programs, career programs, and registered apprenticeship programs, the residents of this state will benefit from the valuable

¹ Chapter 446, F.S.
² 29 C.F.R. ss. 29.1 and 29.13.
³ 29 C.F.R. s. 29.2.
training opportunities developed when on-the-job training is combined with academic-related classroom experiences.  

An apprenticeable occupation is a skilled trade which possesses all of the following characteristics:  

- It is customarily learned in a practical way through a structured, systematic program of on-the-job, supervised training.  
- It is commonly recognized throughout the industry or recognized with a positive view towards changing technology.  
- It involves manual, mechanical, or technical skills and knowledge requiring a minimum of 2,000 hours of work and training, which hours are excluded from the time spent at related instruction.  
- It requires related instruction to supplement on-the-job training. Such instruction may be given in a classroom or through correspondence courses.  
- It involves the development of skills sufficiently broad to be applicable in like occupations throughout an industry, rather than of restricted application to the products or services of any one company.  
- It does not fall into any of the following categories: selling, retailing, or similar occupations in the distributive field; managerial occupations; professional and scientific vocations for which entrance requirements customarily require an academic degree.

Registered Apprenticeship  
Registered apprenticeship is an employer-driven, on-the-job workforce educational training program that connects job seekers looking to learn new skills and career opportunities with employers looking to create a pipeline of highly skilled individuals for their workforce.

The key components of a Florida registered apprenticeship program are as follows:  

- Registration of program standards of apprenticeship with the DOE for federal purposes.  
- Employers are the foundation of every Florida registered apprenticeship program.  
- Apprentices receive on-the-job training (OJT) from an experienced journeyworker or mentor.  
- Apprentices combine OJT learning with technical instruction at Florida College System (FCS) institutions, school district technical colleges, apprenticeship training schools, union training facilities, or at the employer’s facility and can be delivered in a classroom, on-line, correspondence, or any combination thereof.  
- Apprentices receive increases in wages as their skill levels and knowledge increase.  
- The successful completion of a registered apprenticeship program results in a nationally recognized credential issued by the FDOE, which confirms for potential future employers that the apprentice is fully qualified for the job; and  
- Apprentices who complete a Florida-registered apprenticeship program may be accepted by their respective industry as a journey worker.

---

4 Section 446.011(1), F.S.  
5 Section 446.092, F.S.  
7 Id.
Apprenticeship Program Sponsors

Registered apprenticeship program sponsors (sponsors) are responsible for the administration of all aspects of a registered apprenticeship program. 8 Sponsors must be approved by the DOE, based upon a determination of need, if the sponsor meets all of the standards established by the DOE. 9 The term “need” refers to the need of state residents for apprenticeship training. In the absence of proof to the contrary, it is presumed that there is need for apprenticeship and preapprenticeship training in each county in this state. A local sponsor may be a committee, a group of employers, an employer, or a group of employees, or any combination thereof. 10

Apprenticeship Programs

An “apprentice” is a person at least 16 years of age who is engaged in learning a recognized skilled trade through actual work experience under the supervision of journeyman craftsmen, which should be combined with properly coordinated studies of technical and supplementary subjects. An apprentice must enter into an apprentice agreement with a sponsor who may be either an employer, an association of employers, or a local joint apprenticeship committee. 11

Potential candidates for apprenticeships may apply with a registered sponsor, who determines whether the candidate meets the required qualifications. 12 Sponsors may provide private classroom instruction or coordinate with a local educational agency 13 to provide related supplemental classroom instruction. 14 The apprentices are exempt from paying tuition and fees at a school district technical center, FCS institution, or state university. 15

The sponsor operates and registers an agreed-upon apprenticeship program. 16 An apprenticeship program is an organized course of instruction, registered and approved by the DOE that contains all terms and conditions for the qualifications, recruitment, selection, employment, and training of apprentices. 17

The administration and supervision of related and supplemental instruction for apprentices, coordination of such instruction with job experiences, and selection and training of teachers and coordinators for such instruction is the responsibility of the appropriate career education

---

9 Section 446.071(1), F.S.
10 Section 446.071(2), F.S.
11 Section 446.021(2), F.S.
13 Though not defined in the federal regulations governing the U.S. Department of Labor, the U.S. Department of Education regulations define a local educational agency as a board of education or other legally constituted local school authority having administrative control and direction of public elementary or secondary schools in a city, county, township, school district, or political subdivision in a State, or any other public educational institution or agency having administrative control and direction of a vocational education program. 34 C. F. R. s. 400.4.
14 Section 446.051(2), F.S.
15 Section 1009.25(1)(b), F.S.
16 Rule 65A-23.002(21), F.A.C.
17 Section 446.021(6), F.S. An apprenticeship agreement may not operate to invalidate any apprenticeship provision in a collective agreement between employers and employees which establishes higher apprenticeship standards. Section 446.081(1), F.S.
institution. The career education institution is encouraged to provide facilities, equipment and supplies, and instructors’ salaries for the performance of related and supplemental instruction associated with the registered program.

According to the DOE, there are currently 230 registered apprenticeship programs, and 12,765 registered apprentices.

Preapprenticeship Programs

A preapprentice is any person 16 years of age or over engaged in any course of instruction in the public school system or elsewhere, which course is registered as a preapprenticeship program with the DOE. The program’s purpose is to provide training that will enable students, upon completion, to obtain entrance into a registered apprenticeship program. The program must be registered with the DOE and sponsored by a registered apprenticeship program. According to the DOE, there are currently 22 registered preapprenticeship programs, and 1,077 registered preapprentices.

The DOE is authorized to administer the law relating to preapprenticeship programs in cooperation with district school boards and FCS institution boards of trustees (BOT). District school boards, FCS institution BOT, and sponsors must cooperate in developing and establishing preapprenticeship programs that include career instruction and general education courses required to obtain a high school diploma.

Department of Education Responsibilities

The DOE is responsible for administering, facilitating, and supervising registered apprenticeship programs, including, but not limited to:

- Developing and encouraging apprenticeship programs.
- Registering any apprenticeship or preapprenticeship program, regardless of affiliation, which meets standards established by the DOE.
- Cooperating with and assisting sponsors to develop apprenticeship standards and training requirements.
- Monitoring registered apprenticeship programs.
- Leading and coordinating outreach efforts to educate veterans about apprenticeship and career opportunities.
- Investigating complaints regarding failure to meet the standards established by the DOE.

---

18 Section 446.051(1), F.S.
19 Section 446.051(2), F.S.
20 Email, Florida Department of Education (Jan. 23, 2020).
21 Section 446.021(1), F.S.
22 Rule 6A-23.010(1), F.A.C.
23 Section 446.021(5), F.S.
24 Email, Florida Department of Education (Jan. 23, 2020).
25 Sections 446.011 to 446.092, F.S.
26 Section 446.052(2), F.S.
27 Section 446.041, F.S.
28 Apprenticeship programs may be in both non-union and union workplaces; sponsors may include employers, labor organizations, and joint labor-management organizations. United States Department of Labor, Frequently Asked Questions, https://www.dol.gov/apprenticeship/toolkit/toolkitfaq.htm#3b (last visited Jan. 23, 2020).
• Canceling registration of programs that fail to comply with DOE standards and policies.

The DOE establishes uniform minimum standards and policies governing registered apprenticeship programs and agreements. The standards and policies must govern the terms and conditions of the apprentice’s employment and training, including the quality training of the apprentice for, but not limited to, such matters as ratios of apprentices to journeymen, safety, related instruction, and on-the-job training. The DOE is also required to publish an annual report on apprenticeship and preapprenticeship programs, which must include:
• A list of registered apprenticeship and preapprenticeship programs.
• A summary of each local educational agency’s expenditure of funds for apprenticeship and preapprenticeship programs, per trade or occupation.
• The number of apprentices and preapprentices per trade and occupation.
• The percentage of apprentices and preapprentices who complete their respective programs in the appropriate timeframe.
• Information and resources related to applications for new apprenticeship programs and technical assistance and requirements for potential applicants.
• Documentation of activities conducted by the DOE to promote apprenticeship and preapprenticeship programs through public engagement, community-based partnerships, and other initiatives.

State Apprenticeship Advisory Council

The State Apprenticeship Advisory Council (council) advises the DOE on matters related to apprenticeship. The council may not establish policy, adopt rules, or consider whether particular apprenticeship programs should be approved by DOE. The Commissioner of Education (commissioner) or the commissioner’s designee must serve ex officio as chair of the council, but may not vote. The state director of the United States Department of Labor (USDOL) also serves ex officio as a nonvoting member of the council. The council is comprised of 10 voting members appointed by the Governor. The council must meet at the call of the chair or at the request of a majority of its membership, but at least twice a year.

Florida Pathways to Career Opportunities Grant Program

In 2019, the Governor issued an executive order directing the DOE to seek funding to seed high quality workforce apprenticeships and other industry specific learning opportunities for students.

The Florida Pathways to Career Opportunities Grant Program (grant program) was established in 2019 in the DOE to provide grants on a competitive basis to high schools, career centers, charter technical career centers, FCS institutions, and other entities authorized to sponsor an

29 Section 446.032(1), F.S.
30 Section 446.032(2), F.S.
31 Section 446.045(2)(a), F.S.
32 Section 446.045(2)(b), F.S.
33 Id.
34 Section 446.045(2)(c), F.S.
36 Section 33, ch. 2019-119, L.O.F.
apprenticeship or preapprenticeship program to establish new apprenticeship or preapprenticeship programs and expand existing apprenticeship or preapprenticeship programs. Grant funds may be used for instructional equipment, supplies, personnel, student services, and other expenses associated with the creation or expansion of an apprenticeship program. Grant funds may not be used for recurring instructional costs or for indirect costs.\(^{37}\)

The 2019 Legislature appropriated $10 million for the grant program.\(^{38}\) As of January 17, 2020, $7,222,392 has been awarded for 36 projects, including 12 new apprenticeship programs, 14 expansions of apprentices programs, 7 new preapprenticeship programs, and 3 expansions of preapprenticeship programs.\(^{39}\)

**Effect of Proposed Changes**

The bill make a number of changes that clarify apprenticeship and praapprenticeship program requirements and broaden the scope of such programs to occupations, not just trades. The bill also clarifies that standards are uniform minimum standards, which aligns with current practice.\(^{40}\) Finally, the bill removes outdated language related to job trainees, on-the-job training, and limitations to local sponsors, rather than statewide, regional, or national sponsors.

**Apprenticeships and Preapprenticeships in Florida**

The bill modifies s. 446.011, F.S., to broaden the scope of apprenticeship programs to remove the requirement that such programs be in occupations throughout industry that require physical manipulation skills. The change broadens the scope of programs to those occupations, such as information technology or healthcare, that do not rely on physical manipulation skills and encourages cooperation between secondary and postsecondary institutions and business and industry registered apprenticeship program instruction. The bill also encourages coordination between school districts, Florida College System institutions, and state universities in the development of apprenticeship programs that lead to college credit or a college degree. Related to this change, the bill modifies s. 446.092, F.S., to remove from the description of an apprenticeship occupation that it is in a skilled trade.

The bill connects on-the-job training to academic related experiences, but removes the qualifier that these are classroom experiences. Related technical instruction is often conducted through online or correspondence courses. The bill also clarifies that the instruction includes both the related technical instruction and supplemental instruction, consistent with current practice.

**Apprenticeship Program Sponsors**

Consistent with the emphasis in the bill to broaden the scope of apprenticeship programs to more types of occupations, rather than be limited to the trades, the bill modifies s. 446.071, F.S. to expand the number of entities that may serve as a sponsor. The bill specifies that a sponsor may also be an educational institution, a local workforce board, a community or faith-based

---

\(^{37}\) Section 1011.802, F.S.

\(^{38}\) Specific Appropriation 125A, ch. 2019-115, L.O.F.

\(^{39}\) Email, Florida Department of Education (Jan. 23, 2020).

\(^{40}\) Apprenticeship Standards” means the minimum requirements established uniformly for each craft under which an apprenticeship program is administered and includes standards of admission, training goals, training objectives, curriculum outlines, and objective standards to measure successful completion of the apprenticeship program. Rule 6A-23.002(5), F.A.C.
organization, an association, or any entity preapproved by the DOE. In addition, the bill provides flexibility to the DOE in the determination of need in apprenticeship program approvals.

Apprenticeship Programs
The bill modifies s. 446.021, F.S., to change a number of definitions to clarify intent and align with USDOL definitions for registered apprenticeship and preapprenticeship programs. The bill also modifies s. 446.051, F.S., to clarify that:

- The administration and supervision of DOE-approved programs is the responsibility of the registered apprenticeship or preapprenticeship sponsor, rather than the career education center.
- District school boards, and FCS institution and State University System (SUS) boards of trustees (BOTs) are encouraged to cooperate with registered apprenticeship or preapprenticeship sponsors for the provision of programs.

The bill also removes the definition in s. 446.021, F.S., and repeals s. 446.091, F.S., relating to on-the-job training. The term is outdated in relation to responsibilities of the DOE over apprenticeship and preapprenticeship programs.

Preapprenticeship Programs
The bill modifies s. 446.052, F.S., to encourage, but not require, district school boards, FCS institution and SUS institution BOTs to cooperate and develop preapprenticeship programs. The bill requires SUS institution BOTs to work with the DOE, district school boards, and FCS institution BOTs to ensure that individuals completing registered preapprenticeship programs may be able to receive credit toward a registered apprenticeship program and college credit toward a degree. The bill also provides flexibility and preapprenticeship program sponsor discretion in the development of programs by clarifying that such programs include career education, but need not include general education courses required for a high school diploma.

Department of Education Responsibilities
The bill modifies s. 446.032, F.S., to make a number of technical changes relating to the general duties of the DOE for registered apprenticeships. The bill also modifies the timeframe for completers in the local education agency registered apprenticeship expenditure report submitted to the DOE. The intent of the metric is to track completers, but because program length varies widely among sponsors, it is not appropriate to track the time to completion. In addition, the report must include information about potential registered apprenticeship programs, rather than applications.

The bill also modifies s. 446.041, F.S., to recognize the requirement of the sponsor, not the DOE to develop and supervise programs. The bill also clarifies that the DOE does not administer the uniform standards, but has responsibility to review and evaluate the program standards.41 The bill also requires the DOE to register apprenticeship and preapprenticeship programs, regardless

---

41 Section 446.071, F.S., authorizes the DOE to grant a variance from the standards upon a showing of good cause for the variance by program sponsors in nonconstruction trades. This authorization recognizes the unique and varying training requirements in nontraditional apprenticeable occupations and to authorize the DOE to adapt the standards to the needs of the programs.
of affiliation, which includes a wide range of sponsors, both union and non-union. Finally, the bill removes the requirement to reach out to veterans about career education. Such outreach is beyond the scope of duties related to registered apprenticeship programs.

State Apprenticeship Advisory Council
The bill modifies s. 446.045, F.S. to change the scope, membership, and meetings of the State Apprenticeship Advisory Council (council). Specifically, the bill:
- Specifies that the council’s purpose is to advise the DOE on matters related to both registered apprenticeships and registered preapprenticeships.
- Changes membership from the state director of the Office of Apprenticeship (office) in the USDOL to a representative of the office. This is consistent with the current organizational structure of USDOL representation; there are currently regional, not state directors.
- Authorizes the council chair’s designee to call a meeting, and authorizes a voting majority of the council membership to request a meeting.

Florida Pathways to Career Opportunities Grant Program
The bill modifies s. 1011.802, F.S., to change the selection criteria and use of funds for the Florida Pathways to Career Opportunities Grant Program (grant program). The bill:
- Clarifies that the authorization to use grant funds for personnel is for instructional personnel.
- Authorizes the DOE to use up to $200,000 of the total allocation to administer the grant program.

Such changes provide the DOE with more support to administer the program, and clarifies the intent of the use of grant program funds.

Work-based Learning

Present Situation
Federal legislation defines work-based learning (WBL) as “sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.”

Learning set in the real-world context of work not only makes academic learning more accessible to many students but also increases their engagement in schooling. WBL can play a crucial role in improving outcomes for at-risk students by increasing their engagement in learning, whether in or out of school.

---

42 Perkins V (The Strengthening Career and Technical Education for the 21st Century Act) and other federal legislation reference and support work-based learning, including in the Every Student Succeeds Act of 2015 (ESSA), and the Workforce Innovation and Opportunity Act of 2014 (WIOA).
43 Email, Florida Department of Education (Jan. 23, 2020).
WBL takes many forms, such as internships, job shadowing, service learning or preapprenticeships, and is defined by activities and experiences that occur when a student or worker:  

- Goes to a workplace or works with an employer.
- Does meaningful job tasks that develop his or her skills, knowledge, and readiness for work and support entry or advancement in a particular career field.

WBL is comprised of identified courses that involve on-the-job training which is an instructional method whereby students acquire knowledge and skills exclusively on-site with a business or industry partner instead of a traditional classroom setting. WBL may also be delivered through utilization of the cooperative method of instruction which is delivered through formal classroom instruction and on-the-job learning, on-site, with a business or industry partner.

Recent research, policy literature, and federal legislation suggest that comprehensive WBL programs contain three key components: the alignment of classroom and workplace learning; application of academic, technical, and employability skills in a work setting; and support from classroom or workplace mentors.

In 2018-2019, there were 19,992 students enrolled in secondary on-the-job training, preapprenticeship, work experience, and other WBL courses.

Workers’ Compensation

Workers’ compensation is a form of insurance designed to provide wage replacement and medical benefits for employees who are injured in the course of employment, in exchange for giving up the right to sue the employer for negligence. In Florida, workers’ compensation is governed by ch. 440, F.S., the “Workers’ Compensation Law.” The law prescribes coverage requirements, medical and indemnity benefits, the rights and responsibilities of employers, injured employees, medical providers, and carriers, as well as procedures for dispute resolution.

Generally, employers are required to provide medical and indemnity benefits to a worker who is injured due to an accident arising out of and during the course of employment. For such injuries, an employer is responsible for providing medical treatment, and compensation in the event of employee disability or death. Specific employer coverage requirements are based on the type of industry, number of employees, and entity organization.

---

45 Email, Florida Department of Education (Jan. 23, 2020).
47 Email, Florida Department of Education (Jan. 23, 2020).
48 Section 440.09(1), F.S.
49 Section 440.13, F.S.
50 Section 440.15, F.S.
51 Section 440.16, F.S.
State Risk Management Program

The Division of Risk Management (DRM) located within the DFS is responsible for ensuring that state agencies and universities participating in the state’s self-insurance program receive quality coverage for workers’ compensation, general liability, federal civil rights, auto liability, and property insurance at reasonable rates. The DRM’s operations and the state’s insurance coverage are funded by annual agency assessments, which are deposited into the State Risk Management Trust Fund (SRMTF). The SRMTF provides coverage that protects state property and workforce members that are exposed to the risk of financial losses through damage, injuries, and alleged negligent or improper acts.

Effect of Proposed Changes

The bill creates s. 446.541, F.S. to provide a definition of “work-based learning” as synonymous with “on-the-job training” and means interactions with industry or community professionals in off-campus workplaces which foster in-depth, firsthand engagement with the tasks required in a given career field and which are aligned to curriculum and instruction. The bill encourages school districts to place students in paid work experiences for purposes of educational training and WBL.

The bill provides that:

- Individuals 18 years of age or younger who are enrolled in a Florida-registered preapprenticeship program that requires work-based learning or other specified preapprenticeship program specified in law are deemed to be employees of the state for purposes of workers’ compensation coverage only for medically necessary care rendered as a direct result of that injury.
- Any students in grades 6 through 12 who are enrolled in a course identified in the Course Code Directory which incorporates a work-based learning component or an activity that is unpaid who are injured due to participation in such component or activity are deemed to be employees of the state for purposes of workers’ compensation coverage only for medically necessary care needed as a direct result of that injury.

The designation of preapprenticeship and WBL program students as employees of the state for the purposes of workers’ compensation medical claims may increase the financial liability of the state, but may encourage more employers, who otherwise would not participate due to concerns about assuming liability for a minor, to partner with school districts to sponsor such programs. The provisions in the bill may allow more students under 18 to participate in work-based learning opportunities.

53 Section 20.121(2)(h), F.S.
55 A program administered under ss. 446.011 to 446.092, F.S.
Elementary and Secondary Career Education

Present Situation

Middle Grades Promotion

Florida law specifies the general requirements for middle grades promotion. In 2006, the Legislature revised middle grades promotion requirements to include a course in career exploration and planning. The course must be completed in grades 6, 7, or 8 and can be delivered as a stand-alone course or integrated into another course and be taught by any member of the instructional staff. The course must:

- Be internet-based and include research-based assessments to assist students in determining educational and career options and goals.
- Result in a completed personalized academic and career plan, to inform students of requirements related to standardized assessments, high school graduation and diploma designations, college entrance tests and admissions, and the Florida Bright Futures Scholarship Program, as well as opportunities to earn college credit in high school through academic and career-based options.
- Emphasize the importance of entrepreneurship and employability skills.
- Include information from the Department of Economic Opportunity’s economic security report identified in law.

High School Graduation Requirements – Career-themed Courses

One of the options for a student to earn a standard high school diploma is to successfully complete 24 credits specified in law. The required credits may be earned through equivalent, applied, or integrated courses or career education courses, including approved work-related internship.

The DOE is required to develop, for approval by the State Board of Education (SBE), additional career education courses or a series of courses that meet requirements for a career and

56 Section 1003.4156(1), F.S.
57 Section 21, ch. 2006-74, L.O.F.
58 Section 1003.4156(1)(e), F.S.
59 Section 445.07, F.S.
60 Section 1003.4282(1)(a), F.S.
61 Career education courses at the elementary, middle, and high school levels are exploratory courses designed to give students initial exposure to a broad range of occupations to assist them in preparing their academic and occupational plans, and practical arts courses that provide generic skills that may apply to many occupations but are not designed to prepare students for entry into a specific occupation. At the secondary level, such courses are for job-preparatory instruction in the competencies that prepare students for effective entry into an occupation, including diversified cooperative education, work experience, and job-entry programs that coordinate directed study and on-the-job training. Section 1003.01(4), F.S.
62 Section 1003.4282(1)(b), F.S.
professional academy and career-themed course, and allow students to earn credit in both the career education course and a course required for high school graduation. In addition:

- Each school district should take the initiative to work with local workforce boards, local business and industry leaders, and postsecondary institutions to establish partnerships for the purpose of creating career education courses or a series of courses to meet specified career education course requirements that students can take to earn high school course credits.
- Regional consortium service organizations must work with school districts, local workforce boards, postsecondary institutions, and local business and industry leaders to create career education courses that meet specified career education course requirements and that students can take to earn high school course credits.

Career-themed courses are identified and reported to the DOE by school districts. Currently, there are identified 1,111 career-themed course identified by 64 school districts.

**Computer Science Instruction**

Florida law defines computer science as the study of computers and algorithmic processes, including their principles, hardware and software designs, applications, and their impact on society, and includes computer coding and computer programming.

Public schools are required to provide students in grades K-12 opportunities for learning computer science including, but not limited to, computer coding and computer programming. Such opportunities may include coding instruction in elementary school and middle school and instruction to develop students’ computer usage and digital literacy skills in middle school, and must include courses in computer science in middle school and high school, including earning related industry certifications.

---

63 A “career and professional academy” is a research-based program that integrates a rigorous academic curriculum with an industry-specific curriculum aligned directly to priority workforce needs established by the local workforce development board or the Department of Economic Opportunity. Career and professional academies must be offered by public schools and school districts. A “career-themed course” is a course, or a course in a series of courses, that leads to an industry certification identified in the CAPE Industry Certification Funding List pursuant to rules adopted by the State Board of Education. Career-themed courses have industry-specific curriculum aligned directly to priority workforce needs established by the local workforce development board or the Department of Economic Opportunity. School districts must offer at least two career-themed courses, and each secondary school is encouraged to offer at least one career-themed course. Section 1003.493(1), F.S. The requirements for a career and professional academy and career-themed course are listed in section 1003.493(4), F.S. All career courses offered in a career and professional academy and each career-themed course offered by a secondary school must lead to industry certification or college credit. Section 1003.493(5), F.S.

64 Section 1003.4282(8), F.S.
65 Section 1003.4282(8)(b)-(c), F.S.
66 School districts with 20,000 or fewer unweighted full-time equivalent students, developmental research (laboratory) schools, and the Florida School for the Deaf and the Blind may enter into cooperative agreements to form a regional consortium service organization to provide, at a minimum, three of the following services: exceptional student education; teacher education centers; environmental education; federal grant procurement and coordination; data processing; health insurance; risk management insurance; staff development; purchasing; or planning and accountability. Section 1001.451, F.S.
67 Email, Florida Department of Education (Jan. 23. 2020).
68 Section 1007.2616(1), F.S.
69 Section 1007.2616(2)(a), F.S.
70 Id.
Computer science courses must be identified in the Course Code Directory and published on the DOE website. 71 There are currently 66 secondary computer science courses identified on the DOE website. 72

A school district or a consortium of school districts may apply to the DOE for funding for: 73

- Training for classroom teachers to earn an educator certificate in computer science.
- Training that leads to an industry certification associated with a course identified in the Course Code Directory.
- Professional development for classroom teachers to provide instruction in computer science courses and content.

The DOE must establish a deadline for submitting applications. The DOE must award funding to school districts in a manner that allows for an equitable distribution of funding statewide based on student population. 74

Such funding shall only be used to provide training for classroom teachers, or to pay fees for examinations that lead to a credential, or to provide professional development. 75

**Effect of Proposed Changes**

**Middle Grades Promotion**

The bill modifies s. 1003.4156, F.S., to encourage students to complete one course in career and education planning in middle school, but makes the course optional. In addition, the bill makes the course content optional. Therefore, school districts may choose whether to offer the course and will have discretion over course topics. The bill also authorizes that the Florida Virtual School may offer the course in career and education planning.

**High School Graduation Requirements – Career-themed Courses**

The bill modifies s. 1003.4282, F.S., to authorize school districts or regional consortia to work with national providers to submit recommended career-themed courses to the DOE for SBE approval. The bill requires that recommended courses must meet the requirements for career and professional academies and career-themed courses that students can take and earn required high school course credits.

**Computer Science Courses**

The bill modifies s. 1007.2616, F.S., to specify that opportunities for learning computer science in elementary school must include computational thinking and foundational computer science skills.

---

71 Section 1007.2616(2)(b), F.S.
74 Section 1007.2616(4)(b), F.S.
75 Section 1007.2616(4), F.S.
The bill also modifies the use of funds that may be used by school districts or a consortium of school districts to assist teachers to earn educator certification in computer science, industry certifications in computer science, and for teacher professional development. The bill also authorizes that funds may be used for the purchase of technology, including hardware and software, directly related to computer science instruction and specifies that the DOE must award funding based on criteria developed by the DOE, rather than through a required competitive process.

**Career and Professional Education Industry Certifications**

The purpose of career education is to enable students who complete career programs to attain and sustain employment and realize economic self-sufficiency.\(^{76}\)

**Present Situation**

In 2007, the Legislature passed the Career and Professional Education (CAPE) Act,\(^{77}\) to provide a statewide planning partnership between the business and education communities in order to attract, expand, and retain targeted, high-value industry and to sustain a strong, knowledge-based economy.\(^{78}\)

An industry certification is a voluntary process through which students are assessed by an independent, third-party certifying entity using predetermined standards for knowledge, skills, and competencies, resulting in the award of a credential that is nationally recognized.\(^{79}\) Industry certifications that generate bonus funds for school districts are included on the CAPE Industry Certification Funding List,\(^{80}\) which also contains the industry certifications on the career pathways list approved for the Florida Gold Seal Vocational Scholars award.\(^{81}\)

The DOE identifies career certificates, industry certifications, and career courses. At least annually, the DOE and the commissioner must identify additional career certificates, industry certifications, and career courses, which includes CAPE industry certifications identified on the CAPE Industry Certification Funding List that must be applied in the distribution of funding to school districts.\(^{82}\)

The CAPE Act provides multiple options for students to attain digital skills through digital tools and industry certifications.\(^{83}\) Digital tools are certificates reflecting core computer skills. The

---

\(^{76}\) Section 1004.92(1), F.S.

\(^{77}\) Chapter 2007-216, L.O.F.

\(^{78}\) Section 1003.491, F.S.

\(^{79}\) Rule 6A-6.0573(2)(e), F.A.C.

\(^{80}\) The “CAPE Industry Certification Funding List” means a list of industry certifications, certificates, and courses adopted by the State Board of Education for implementation of the Florida CAPE Act. Rule 6A-6.0573(2)(b), F.A.C.

\(^{81}\) Section 1008.44(1)(a), F.S. See also s. 1009.536, F.S., for the requirements of a Florida Gold Seal Vocational Scholars award.

\(^{82}\) Section 1008.44(1), F.S.

\(^{83}\) Section 1003.4203, F.S.
DOE is required to annually identify, and the commissioner may recommend, up to 15 CAPE Digital Tool certificates for inclusion on a CAPE Industry Certification Funding List.\textsuperscript{84}

The commissioner may limit CAPE industry certifications and CAPE Digital Tool certificates to students in certain grades based on formal recommendations by providers of CAPE industry certifications and CAPE Digital Tool certificates.\textsuperscript{85}

**Funding for Workforce Education Programs**

Workforce education may be conducted by an FCS institution or a school district, and includes:\textsuperscript{86}

- Adult general education programs designed to improve the employability skills of the state’s workforce.
- Career certificate programs.
- Applied technology diploma programs.
- Continuing workforce education courses.
- Degree career education programs.
- Apprenticeship and preapprenticeship programs.

A school district or an FCS institution that provides workforce education programs receive funds in accordance with distributions for base and performance funding established by the Legislature in the General Appropriations Act (GAA).\textsuperscript{87}

Performance funding for industry certifications for school district workforce education programs\textsuperscript{88} and FCS institutions\textsuperscript{89} is contingent upon specific appropriation in the GAA and is determined by criteria specified in law,\textsuperscript{90} which specifies that each school district or FCS institution must be provided $1,000 for each industry certification earned by a workforce education or FCS institution student. If funds are insufficient to fully fund the calculated total award, such funds are prorated.

**Bonus Funds for CAPE Industry Certifications**

School districts are eligible for bonus funds for student completion of specified career courses and certifications. In addition to full-time equivalent (FTE) bonus funding for CAPE Digital

\textsuperscript{85} Section 1008.44(4)(b), F.S.
\textsuperscript{86} Section 1011.80(1) and (2), F.S.
\textsuperscript{87} Section 1011.80(7)(a), F.S.
\textsuperscript{88} Section 1011.80(7), F.S.
\textsuperscript{89} Section 1011.81(2), F.S.
\textsuperscript{90} See ss. 1011.80(7) and 1011.81(2), F.S.
Tool Certificates, CAPE Innovation courses, and CAPE Acceleration certifications, the district may receive:

- A value of 0.1 or 0.2 FTE student membership for each student who completes a career-themed course or courses with embedded CAPE industry certifications and who earns a CAPE industry certification.
- A value of 0.2 FTE for each student who is issued a CAPE industry certification that has a statewide articulation agreement for college credit approved by the SBE.
- A value of 0.1 FTE for each student who is issued a CAPE industry certifications that does not articulate for college credit.

Each district must allocate at least 80 percent of the bonus funds provided for CAPE industry certification to the program that generated the funds. This allocation may not be used to supplant funds provided for basic operation of the program.

In 2018-2019, the estimated value of the FTE bonus for career-themed courses and industry certifications in all school districts was approximately $77.4 million.

**Effect of Proposed Changes**

The bill modifies s. 1008.44, F.S., to require that the DOE and commissioner recommend industry certifications to the CAPE industry certification list that are associated with aviation-related and aerospace-related occupations. The bill specifies that such industry certifications are eligible for additional full-time equivalent membership bonus funds. The bill also provide greater authority to the commissioner to limit CAPE industry certifications and digital tools to certain grades. The bill specifies that such limits are for the purposes of calculating additional FTE membership for the industry certification bonus funding, not based on recommendations by CAPE providers.

The bill also changes a reference from the Florida Gold Seal Vocational Scholars award to the Florida Gold Seal CAPE Scholars award for the identification of CAPE industry certifications on the career pathways list. This corrects the reference to the appropriate Bright Futures Scholarship Program award. The Florida Gold Seal Vocational Scholars award does not require completion of CAPE industry certifications. The Florida Gold Seal CAPE Scholars award requires a student

---

91 CAPE Innovation courses are up to five courses annually approved by the commissioner that combine academic and career content, and performance outcome expectations that, if achieved by a student, shall articulate for college credit and be eligible for additional full-time equivalent membership. Section 1003.4203(5)(a), F.S.

92 CAPE Acceleration are industry certifications, annually approved by the commissioner, that articulate for 15 or more college credit hours and, if successfully completed, are eligible for additional FTE bonus funds. Section 1003.4203(5)(b), F.S.

93 A 0.1 FTE bonus would equal $427.95, and a 0.2 FTE bonus would equal $855.90; based on the base student allocation of $4,279.49 in the Florida Education Finance Program, identified in Specific Appropriation 93 of the 2019 General Appropriations Act.

94 A “career-themed course” is a course, or a course in a series of courses, that leads to an industry certification identified in the CAPE Industry Certification Funding List pursuant to rules adopted by the State Board of Education. Career-themed courses have industry-specific curriculum aligned directly to priority workforce needs established by the local workforce development board or the Department of Economic Opportunity. Section 1003.493(1)(b), F.S.

95 Section 1011.62(1)(o)2., F.S.

96 Email, Florida Department of Education (Jan. 23, 2020).
to earn a minimum of five postsecondary credit hours through approved CAPE industry certifications approved which articulate for college credit.97

Funding for Workforce Education Programs
The bill maintains the $1,000 provision to school districts and FCS institutions for industry certifications earned by students. But specifies that, for each professional-level, Federal Aviation Administration (FAA) industry certification earned by a workforce education or FCS institution student, each school district or FCS institution must be provided a total of $6,000. If funds are insufficient to fully fund the calculated total award, such funds must be prorated.

The bill provides additional incentives for school districts to encourage students to pursue an FAA industry certification. Such certifications are rigorous and, according to statewide articulation agreements, result in 24 to 36 college credits toward a degree.

Bonus Funds for CAPE Industry Certifications
The bill modifies the FTE bonus funding in s. 1011.62, F.S., for CAPE industry certifications with a statewide articulation agreement for college credit. The bill awards a higher bonus to rigorous CAPE industry certifications that articulate for more college credit, and specifies that:

- A value of 0.2 FTE is calculated for a CAPE industry certification that has a statewide articulation agreement of 4 to 14 college credits.
- A value of 0.2 FTE is calculated for a CAPE industry certification that has a statewide articulation agreement of 1 to 3 college credits and is deemed by the department to be of sufficient rigor and to be linked to a high-skill occupation.
- A value of 0.1 FTE is calculated for all other CAPE industry certifications with a statewide articulation agreement of 1 to 3 college credits.
- A supplemental value of 0.2 FTE is calculated for industry certifications identified on the CAPE Industry Certification Funding List as leading to employment in aviation-related or aerospace-related occupations and meeting specified criteria prescribed by the DOE.

The bill removes the prohibition that additional FTE calculations for an elementary or middle school student may not exceed 0.1 for certificates or industry certifications earned in the same fiscal year. The bill also provides flexibility to the school district by removing the requirement that the bonus funds must be provided to the teachers employed by the district in the year that the FTE bonus funds is included in the calculation.

According to information published on the DOE website, there are 115 industry certification articulation agreements that generate from 1 to 3 credits, and 25 articulation agreements that generate from 4 to 14 college credits.98 There is one articulation agreement that generates 15 college credits;99 it is not clear the bonus funding level for that agreement.

---

97 Section 1009.536(2), F.S.
99 The agreement is: MSSC Certified Production Technician (CPT) (15 credits). Id.
This modification will provide a lower bonus (0.1 from 0.2 FTE) for those CAPE industry certifications that generate from 1 to 3 colleges credits in an articulation agreement, but have not been identified by the DOE as rigorous or linked to a high-skill occupation.

The bill also specifies that the 20 percent of bonus funds that are not required to be allocated to the program that generated the bonus may be used for other CAPE program expenses, such as administrative costs, which may not exceed 5 percent of the funds provided, and new industry certification programs. All such funds must be used for CAPE programs, and may not be used to supplant operations funds, such as teacher salaries and other costs that are funded with non-CAPE funds for other courses.

Mathematics Pathways

Present Situation

Statewide Articulation Agreement

The SBE and the Board of Governors of the SUS (BOG) are required to enter into a statewide articulation agreement. The agreement must preserve Florida’s “2+2” system of articulation and facilitate the seamless articulation of student credit across and among Florida’s educational entities.\(^{100}\) The agreement requires state university BOT, FCS BOT, and district school boards to adopt policies and procedures to provide articulated programs so that students can proceed toward their educational objectives as rapidly as their circumstances permit.\(^{101}\)

Academic Pathways

The SBE, in consultation with the BOG, is required to approve a series of meta-majors and the academic pathways that identify the gateway courses associated with each meta-major.\(^{102}\) The purpose of meta-major academic pathways is to advise FCS system associate degree seeking students of the gateway courses that are aligned with their intended academic and career goals. The meta-major academic pathways are established in the following areas:\(^{103}\)

- Arts, humanities, communication and design.
- Business.
- Education.
- Health sciences.
- Industry/manufacturing and construction.
- Public Safety.
- Science, technology, engineering, and mathematics.
- Social and behavioral sciences and human services.

In 2018, the Florida Student Success Center\(^{104}\) established three workgroups to identify current challenges in mathematics pathways and develop policy and practice recommendations to

\(^{100}\) Section 1007.23(1), F.S.
\(^{101}\) Rule 6A-10.024(1), F.A.C.
\(^{102}\) Section 1008.30(4), F.S.
\(^{103}\) Rule 6A-14.065, F.A.C.
\(^{104}\) The Florida Student Success Center is part of the national Student Success Center Network and supports Florida's 28 state and community colleges' efforts to develop student-centered pathways and increase student completion rates. The Florida
improve student achievement across Florida's education systems. The charge to the workgroups was to explore complex issues surrounding mathematics pathways to prepare high school students for transition into FCS institutions, and FCS institution students for transition into four-year universities. More than 90 mathematics faculty, administrators and key stakeholders from Florida's K-12 system, the FCS, and the SUS served as members of the workgroups in 2018-19. Among the 12 recommendations, the workgroups recommended creation of common mathematics pathways by aligning mathematics courses to programs, meta-majors, and careers in Florida.\textsuperscript{105}

\textbf{Effect of Proposed Changes}

The bill modifies s. 1007.23, F.S., to require the statewide articulation agreement to specify three mathematics pathways, which are aligned to programs, meta-majors, and careers, on which degree-seeking students must be placed. The bill specifies the purpose of the pathways is to facilitate seamless transfer, reduce excess credit hours, and ensure that students are taking the relevant courses needed for their future careers. To accomplish the identification of the mathematics pathways, the bill requires, by September 31, 2020, the Articulation Coordinating Committee (ACC)\textsuperscript{106} to convene a representative workgroup composed of academic affairs administrators and faculty from state universities and FCS institutions to identify the three pathways. The workgroup must report its recommendations to the ACC, BOG, and the SBE by March 31, 2021. The ACC must approve the mathematics pathways by May 31, 2021.

\textbf{IV. Constitutional Issues:}

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

\textsuperscript{105} The Florida College System, \textit{Mathematics Re-Design},

\textsuperscript{106} The Articulation Coordinating Committee (ACC) is established by the Commissioner of Education, in consultation with the Chancellor of the State University System, to make recommendations related to statewide articulation policies and issues. The ACC consists of two members each representing the State University System, the Florida College System, public career and technical education, K-12 education, and nonpublic postsecondary education and one member representing students. The Office of K-20 Articulation in the DOE provides administrative support for the ACC. Section 1007.01(3), F.S.
E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

School districts that pay workers’ compensation expenses for participants in work-based learning programs would likely see a reduction in workers’ compensation costs. The reduction in workers’ compensation costs is not known.\(^\text{107}\)

The changes to the award of CAPE industry certification bonus funds and bonus funds for completion of Federal Aviation Administration industry certifications may affect the amount a school district annually receives, depending on the industry certifications completed by students in the district.

C. Government Sector Impact:

The Division of Risk Management (DRM) would incur additional claims costs for covering participants in preapprenticeship and work-based learning programs.\(^\text{108}\)

According to the Department of Education, approximately 885 students were enrolled in preapprenticeship programs, and approximately 30,000 students were enrolled in a course which may contain a work-based learning component or an activity that is unpaid. The fiscal analysis assumes all such participants could potentially be involved in programs with a work-based learning component.

Using a 2 percent annual claim rate seen in similar programs, and assuming most of the estimated 30,885 participants were working on a part-time basis, a total of 15,443 FTE participants could be added to the count for workers’ compensation coverage, with an additional 309 new claims per year, comprised of 25 lost-time claims and 284 medical-only claims. Such an increase in the number of claims would require a minimum of one (1) additional FTE in order to handle the increased workload. The estimated recurring cost of this FTE is $59,700.

Based on statistics for other programs, the DRM has paid an average of $3,176 per year, per claim, for medical, legal, and expense costs. For 309 new claims each year, the DRM estimates annual medical claim costs, legal costs and expenses of approximately $981,498 would be paid.

\(^{107}\) Florida Department of Financial Services, 2020 Legislative Bill Analysis (Jan. 24, 2020).

\(^{108}\) Id.
Depending on the number and severity of future claims, the increase in workers’ compensation loss payments and operational costs to the Risk Management Trust Fund could result in a long-term need for additional premium to be charged to the state agencies to cover these losses.

VI. Technical Deficiencies:

Section 1007.2616(4), F.S., authorizes a school district or consortium of districts to apply for funds to assist teachers in earning an educator certificate in computer science, a computer science industry certification, or for professional development. The bill expands the use of funds to authorize the purchase of technology, including hardware and software, directly related to computer science instruction. However, the bill does not modify the requirement in that subsection that requires such funding to be used only to provide training for classroom teachers, or to pay fees for examinations that lead to a credential, or to provide professional development.

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends the following sections of the Florida Statutes: 446.011, 446.021, 446.032, 446.041, 446.045, 446.051, 446.052, 446.071, 446.081, 446.092, 1003.4156, 1003.4282, 1007.23, 1007.2616, 1008.44, 1011.62, and 1011.802.

This bill creates section 446.541 of the Florida Statutes.

This bill repeals section 446.091 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

**CS by Education on January 27, 2020:**

The committee substitute maintains the substance of the bill, which

- Broadens the scope of apprenticeship and preapprenticeship programs (programs) to additional apprenticeship program sponsors (sponsors) and occupations, and:
  - Clarifies that sponsors are responsible for program supervision, subject to uniform minimum standards developed by the Department of Education (DOE).
  - Clarifies the duties of the DOE regarding apprenticeship and preapprenticeship programs.
  - Revises the membership and scope of the State Apprenticeship Advisory Council.
  - Changes the selection criteria and use of funds for the Florida Pathways to Career Opportunities Grant Program.
- Specifies that students in a preapprenticeship program or courses with a work-based component are deemed to be employees of the state for workers’ compensation purposes.
- Modifies provisions related to elementary and secondary career education to:
  - Make optional the middle school course in career and education planning.
Authorize school districts and regional consortia to work with national providers to submit career-themed courses for approval.

Modify the requirement for computer science instruction in elementary school, and expand the use of computer science teacher incentive funds.

- Changes provisions related to Career and Professional Education (CAPE) industry certifications to clarify Commissioner of Education authority, associated CAPE scholarship, and also modify the award and use of CAPE industry certification bonus funds.
- Requires the Articulation Coordinating Committee to identify mathematics pathways aligned to programs, meta-majors, and careers.

The committee substitute also:

- Makes technical changes to the section created in the bill regarding work-based learning (WBL) to clarify that the provision in the bill that students in WBL or preapprenticeship programs are employees of the state for workers’ compensation coverage applies only to medical care as a result of injury.
- Includes state universities as partners to provide related technical instruction as a part of an apprenticeship program, and to ensure completers of a registered apprenticeship program is able to receive college credit.
- Reinstates the references to “registered” apprenticeship that was removed in the bill.
- Encourages school districts, Florida College System (FCS) institutions, and state universities to cooperate to ensure that apprenticeship completers can earn college credit.
- Provides flexibility to the Department of Education to determine the “need” for an apprenticeship program in the approval process.
- Specifies that the Florida Virtual School may offer the middle school course in career and education planning.
- Adds industry certifications associated with aviation and aerospace to the requirement for addition to the CAPE industry certification list, and:
  - Provides a 0.2 FTE bonus for CAPE industry certifications in aviation or aerospace, subject to repeal on July 1, 2023.
  - Clarifies that articulation agreements used to determine CAPE industry certification bonus funds are statewide articulation agreements.
  - Limits the use of bonus funds for administrative costs to 5 percent.
- Provides a $6,000 bonus to a school district or FCS institution for each FAA industry certification earned by one of its students.

B. Amendments:

None.