SENATE COMMITTEE ON EDUCATION
Senator Josh Newman, Chair
2023 - 2024 Regular

Bill No:	SB 711	**Hearing Date:**	April 19, 2023
Author:	Caballero		
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Urgency:	No	**Fiscal:**	Yes
Consultant:	Olgalilia Ramirez		

Subject: Community colleges: blockchain degree programs and technology: working group.

SUMMARY

This bill requires the California Community College (CCC) Chancellor's office in collaboration with the California Department of Education (CDE), to convene a working group, as specified, until July 1,2026, to identify elements of creating a blockchain associate of arts (AA) degree program and guidelines for offering those programs at community colleges, as well as, ensure that course materials developed by the working group can be incorporated into career technical education (CTE) programs offered by local educational agencies (LEA).

BACKGROUND

Existing law:

1) Establishes the CCC, a postsecondary education system consisting of community college districts (CCDs) and the Board of Governors (BOG) of the CCC. (Education Code (EC) § 70900)

2) Requires the CCC BOG to provide leadership and direction in the continuing development of the CCC as an integral and effective element in the structure of public higher education in the state. (EC § 70901)

3) Requires the work of the BOG to at all times be directed to maintaining and continuing, to the maximum degree permissible, local authority and control in the administration of the CCC. (EC § 70901)

4) Requires that the BOG provide general supervision over CCDs, and perform various functions, including establishing minimum standards to govern student academic standards relating to graduation requirements and standards for credit and noncredit classes, standards governing procedures established by CCDs to ensure faculty, staff and student the right to participate and express opinions and the right of academic senates to assume primary responsibility for making recommendations in the areas of curriculum and academic standards (EC § 70901).

5) Establishes a process for the development and adoption of model curriculum standards for a k-12 career technical education course of study that includes

consultation with industry representatives, educators and parents, review and recommendations by the Superintendent of Public instruction to the State Board of Education (EC § 51226).

ANALYSIS

This bill:

1) Requires the CCC Chancellor's Office, in collaboration with CDE, to convene a working group, until July 1, 2026, consisting of representatives for the chancellor's office, the Governor, CDE, LEAs, student-led blockchain clubs, blockchain industry, and blockchain consumer protection groups that specialize in education.

2) Allows the Governor, the Superintendent of Public Instruction, and the CCC Chancellor to confirm or reject representatives selected by any educational entity

3) Requires for the composition and selection of the working group all of the following:

    a) Have no more than two representatives selected from each entity.

    b) Have equal representation between educational entities, industry fields, and consumer protection groups.

    c) Have a designated representative selected by the Governor to represent the Governor.

    d) Allow the Governor, the Superintendent of Public Instruction, and the chancellor to confirm or reject representatives selected by any educational entity, choose more representatives for the working group, and choose representatives to represent industry fields and consumer protection groups if none are selected to represent these groups.

4) Requires that the working group do all of the following:

    a) Identify key elements of creating a blockchain AA degree program and related guidelines for offering the program at CCCs.

    b) Ensure that the blockchain AA degree program and related guidelines meet all aspects of the blockchain industry's growth and development and all applicable use cases.

    c) Ensure that course materials developed for the blockchain AA degree program and related guidelines can be incorporated into CTE programs offered by LEAs, align with the state's plans for CTE, and incorporate skill badging, student-centered flexibility, and customizability.

    d) Develop training manuals, guidelines, and other materials necessary to duplicate the blockchain AA degree program at CCCs statewide.

e) Explore the feasibility of incorporating blockchain technology into curricula currently offered in CCCs AA degree programs and CTE programs offered by LEAs in the fields of social sciences, arts, humanities, and science, technology, engineering, and mathematics.

f) Analyze the benefits, challenges, and viability of storing degree information on blockchain technology.

g) Ensure that the final frameworks and recommendations developed by the working group include a requirement for a course covering blockchain ethics and risk management to ensure compliance with applicable state and federal regulations and emphasize consumer protections.

5) Allows the working group to explore the feasibility of creating a blockchain baccalaureate degree program at CCCs.

6) Requires that the working group meet at least once per month and may consult with other individuals, groups, and organizations for additional insight and expertise on issues under consideration by the working group.

7) Requires, by July 1, 2026, that the working group submit to the Legislature, the Chancellor's office, and CDE a report that outlines, at minimum, recommendations and guidance for creating a blockchain AA degree program at CCCs, and the feasibility of incorporating blockchain technology into curricula currently offered in CCC associate degree programs and CTE programs offered by LEAs in the fields of social sciences, arts, humanities, and science, technology, engineering, and mathematics, as determined by the working group.

8) States all of the following legislative findings and declarations:

a) Blockchain technology, synonymous with distributed ledger technology, is a significant innovation with the potential to revolutionize nearly every economic sector in the state.

b) The state is poised to capitalize on blockchain innovation and continue serving as a leader in embracing new technologies while creating a stable environment in which the blockchain sector can flourish.

c) To properly support the nascent blockchain sector, the state should support efforts to create a reliable source of skilled workers.

d) Jobs in the blockchain sector are high-skill, high-wage, and embrace remote work, giving Californians access to good, flexible jobs of the future while meeting the goals of Executive Order No. N-9-22.

e) There are only a few limited courses relating to the blockchain sector currently offered at CCCs.

STAFF COMMENTS

1) **Need for the bill**. According to the author, "Blockchain technology can significantly help historically disadvantaged communities by connecting them with high-paying jobs. Average entry-level jobs in the blockchain sector, which pay on average $117,000, are hard to access because of the skillset required and are out of reach for most low-income communities of color. By providing economic opportunities in historically disadvantaged communities, we can diversify the local economies, expand the tax base, improve constituent services, and help communities of color advance within the tech sector.

   SB 711 would promote cutting-edge, high quality, and highly sought after courses and curriculum. Specifically, this bill would: (1) Create a workgroup through the California Community College Chancellor's Office to create the framework for Blockchain Associate Degrees. (2) Create a framework that could then be applied to Career Technical Education Programs at K-12 schools".

2) **Blockchain**. Blockchain is a new type of digital technology that has a wide range of practical applications across different industries and government. Blockchains are commonly described as holding encrypted chunks of digital asset data and chaining them together to create a single source of authenticity that is chronological. According to the description of the University of California Irvine's blockchain certificate program, what distinguishes blockchain technology is that it is an online open ledger for anyone and everyone to see. It further describes this ledger as having a serious level of encryption, through some sophisticated mathematics that makes it difficult to have its content altered. The technology is used in products such as financial agreements and cryptocurrencies such as Bitcoin, but it has reportedly many other applications. Each segment of California's public higher education system offer blockchain courses, many through extended learning opportunities and as either a component of a related certificate program (e.g. software development or cybersecurity) or as a series of courses in a standalone certificate program. These short-term certificate programs seem to be the educational standard for higher education institutions.

3) **Related Executive Order**. In 2022, the Governor issued an executive order to address the state's responsible innovation and regulation of blockchain technology and crypto assets. It identified several priorities that are consistent with President Biden's Executive Order issued on March 9. As it pertains to education, the order directed the Governor's Council for Postsecondary Education to identify opportunities to create a research and workforce environment to support blockchain technology innovation, including crypto assets. Council members are also encouraged to: 1) collaborate and identify opportunities to build workforce pathways that ensure an equitable and robust pipeline of talent to the industry; and 2) generate basic and applied research to continue to lead on future generations of blockchain technology. It is unclear whether this work has been initiated by the Governor's Postsecondary Education Council. This bill is far more prescriptive than the goals for higher education outlined in the Governor's Executive Order.

4) **Is this the appropriate solution?** It appears that the intent of the bill is to ensure education and training is aligned to blockchain industry needs. This bill attempts to accomplish this goal by statutorily tasking a new working group with the development of a specific type of degree at CCCs. However, the formation of a working group to facilitate the review and initiate steps toward the implementation of a new degree program may undermine the role of colleges and that of the faculty in academic planning, curricular development and consideration of local student demand for certain programs. CCC faculty are the primary decision-makers in curricular matters and they can include blockchain elements into courses or create certificate or degree programs to meet educational needs of students that are consistent with industry demands. *Shouldn't the faculty play a role in determining what their educational standards should be? Rather than create a new working group, could the Chancellor's Office leverage its existing workforce programs structure and network to convene the necessary stakeholders in the blockchain sector, or similar industries, to identify workforce needs?*

Staff recommends the bill be amended *to delete the contents of the bill and be replaced with all of the following:*

The office of the Chancellor of the California Community Colleges, in consultation with the Academic Senate, shall produce a report by July 1 2026 that addresses the following:

- *A review of existing California Community College programs and courses that are aligned with the blockchain industry.*
- *An analysis of the blockchain industry and demand, including employer needs, student demand and institutional capacity.*
- *Ways to align blockchain workforce needs of employers with the education and training provided by California Community Colleges.*
- *Recommendations on activities related to pipeline development between career technical education programs offered by local educational agencies and Community Colleges.*
- *Recommendations on potential strategies to promote blockchain related careers where a workforce shortage exists.*

The Chancellor's Office shall leverage its existing workforce programs structure and network to convene the necessary stakeholders in the blockchain sector, or similar industries, to identify workforce needs within regional economies.

The report shall include the contributions of faculty, workforce development, K-12 and other relevant stakeholders.

The Office of the Chancellor of the California Community Colleges shall provide a copy of the report to the Legislature by July 1, 2026.

5) **K-12 CTE programs.** Similarly, this bill requires that the working group ensure course materials developed for blockhain AA degrees and guidelines can be

incorporated into CTE programs offer by LEAs**.** The legislature has vested the Superintendent of Public Instruction and the State Board of Education with the authority to develop and adopt state CTE standards that incorporate the integration of career technical and academic education. The processes involve K-12 and higher education practitioners, industry representatives and workforce development agencies who have in-depth understanding of curriculum and instruction, including constraints on instructional time and resources. Although, the original CTE Model Curriculum Standards were adopted by the State Board of Education in 2005 and updated in 2013, local school districts may update curriculum and instructional materials as needed to meet student and industry demands. *Is it appropriate to statutorily ensure specific curriculum is integrated into K-12 CTE programs rather than be considered through the existing course material development processes?*

6) **Related and prior legislation.**

AB 2658 (Calderon) Chaptered 875, Statutes of 2018, required the Secretary of the Government Operations Agency to appoint a blockchain working group that would report to the Legislature on the potential uses, risks, and benefits of the use of blockchain technology.

SUPPORT

Digital Currency Traders Alliance (sponsor)
Blockchain Advocacy Coalition
Gavilan Joint Community College District

OPPOSITION

None received

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