



2023 REPORT

Common Course Numbering Task Force

California Community Colleges Chancellor's Office | Sonya Christian, Chancellor

2023 COMMON COURSE NUMBERING TASK FORCE REPORT

Prepared By

California Community Colleges Chancellor's Office

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- San Diego Community College District: Shelly Hess, Dean of Curriculum; Andrew Hoffman, English Faculty and Past San Diego Mesa College Curriculum Review Committee Co-Chair; and Carmen Scott, Curriculum Technician.
- Peralta Community College District: Nancy Cayton, Berkeley City College Curriculum Specialist; Laura Bollentino, Laney College Articulation Officer; and Heather Sisneros, Laney Curriculum Chair and District Curriculum Committee Co-Chair.
- Los Angeles Community College District (LACCD): Elizabeth Atondo, LACCD Academic Senate Curriculum Chair and Articulation Officer; Dan Keller, LACCD Curriculum Dean; and Cathleen Rozadilla, East Los Angeles College Faculty Articulation Officer.
- Los Rios Community College District: Phil A. Smith, Professor, American River College Mathematics Department and Lead Programmer, SOCRATES Curriculum Management System; Rhonda Farley, English as a Second Language Professor, Department Chair, Cosumnes River College; Renee Medina, Curriculum Chair, Sacramento City College; and Rose Giordano, Dean of Education and Health Professions, Sacramento City College.

¹ Sova is a mission-driven consultancy hired to support the Chancellor’s Office in facilitating the CCN Task Force. You can learn more about Sova at www.sova.org.

In addition, we thank Assemblyman Marc Berman and his office for the investments that made this work possible. The CCN Task Force also benefited from research conducted by a few sources. Sheila Miller Rivera, a consultant to Sova, authored the Common Course Numbering Landscape Scan. From the RP Group, Daisy Segovia, Senior Researcher and Alyssa Nguyen, Senior Director of Research and Evaluation supported a survey and qualitative research study focused on understanding California Community Colleges district experiences with CCN.

Lastly, we thank the many stakeholders in the California Community Colleges, ranging from students to faculty and IT professionals, who have watched our progress with interest, provided feedback and started preparing for the coming implementation. We look forward to the systemwide collaboration ahead.

EXECUTIVE SUMMARY

[Assembly Bill 1111](#) (AB 1111)¹ calls on the California Community Colleges to adopt a student-facing common course numbering (CCN) system in order to “streamline transfer from two- to four-year postsecondary educational institutions and reduce excess credit (unit) accumulation.”

To spur this effort, the California Community Colleges Chancellor’s Office (Chancellor’s Office) formed the AB 1111 Common Course Numbering Task Force (CCN Task Force) to make recommendations for a systemwide implementation plan. Reflecting the Chancellor’s Office’s participatory governance system, the CCN Task Force includes broad and diverse representation from across the system’s 73 districts and 116 colleges. Members reflect key stakeholder groups invested in and intimately knowledgeable about transfer student success, including: community college students themselves; representatives from the Academic Senate for California Community Colleges; administrative leaders, including representatives from the California Community Colleges Chief Instructional Officers; student service professionals, including student success deans; technology officers; institutional effectiveness researchers; chief executive officers; and trustees. Critically, the CCN Task Force has benefited from robust engagement of the California Community College’s four-year transfer partners, the California State University (CSU), University of California (UC), and members of the Association of Independent California Colleges and Universities (AICCU). The CCN Task Force was collaboratively led by two co-chairs: Virginia “Ginni” May, Past President of the Academic Senate for California Community Colleges and Professor of Mathematics and Statistics at Sacramento City College, and Tram Vo-Kumamoto, Past President of the California Community Colleges Chief Instructional Officers and Vice President of Instruction at Saddleback College.

The pages that follow describe more about the CCN Task Force and its work, including the history of CCN in California – and why this effort is different and destined for success. Perhaps most importantly, this report includes the CCN Task Force’s Recommended Implementation Plan, which features recommendations such as the following:

- Definition and scope of a student-facing common course numbering system. To better support students and meet the transfer-focused intent of the legislation, the CCN Task Force defines student-facing CCN as a system that ensures that all students can identify courses across the system as being comparable and therefore transferable and degree-applicable across the California Community Colleges and also to the CSU, the UC and independent colleges and universities in California regardless of the California community college sending institution.
- A new vision for intersegmental transfer, articulation, and collaboration in California. The CCN Task Force has made recommendations for the design of a robust CCN system to be implemented in concert with a new vision for dramatically improved transfer and articulation across the state of California. To realize that vision, the CCN Task

1 California State Legislature. 2021. [Assembly Bill No. 1111, Postsecondary Education: Common Course Numbering System](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1111). https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1111

Force is calling for a resourced infrastructure for intersegmental faculty collaboration – inclusive of faculty from the California Community Colleges, the UC, the CSU, AICCU’s member institutions and other critical transfer partners¹ – that sets out a new and streamlined way of approaching transfer. The initial funding already appropriated by the legislature is critical to helping the California Community Colleges implement this new system, and a long-term funding plan that is inclusive of support for at least the UC, CSU and AICCU’s member institutions is necessary to ensure sustained success. The current funding, while significant, will not support completion and sustainability of the new student-facing common course numbering system. Appendix II indicates funding gaps for this intersegmental work.

- Expected outcomes of student-facing CCN. The CCN Task Force expects that implementation of a student-facing CCN system, when done well, will achieve outcomes that include: easy identification of which courses meet general education and which courses meet major preparation requirements within the California Community Colleges; improved articulation for transfer to four-year institutions; increased transparency about how courses transfer; improved technology infrastructure; and progress on the [Vision 2030](#) goals, including improved transfer student outcomes and the closing of equity gaps.
- A statewide intersegmental CCN Council, with an accompanying steering and operational structure. The CCN Task Force recommends a CCN Council to set strategic direction and goals, guide the work of implementation work groups, and identify policy barriers to strong implementation of CCN. A Steering Committee, in coordination with the Chancellor’s Office CCN operations team (staff, contractors, etc.), should provide planning and facilitation for the CCN Council. Work groups, specifically focused on CCN Development and CCN Technology and Processes, should carry the work forward. The Recommended Implementation Plan includes recommendations for their charges, membership, guiding principles and activities.
- Foundational elements of a CCN system. The CCN Task Force outlined recommendations such as: clear definitions of key terms related to the CCN Implementation; a framework for which course elements must be identical or equivalent for a course to be numbered the same with consistent transferability and applicability; a sample course numbering taxonomy system that aligns course identification across all California community colleges and aligns with technological requirements from the different systems housing this information; and a CCN Descriptor development process that is efficient, of high quality, engages all segments of higher education, authentically engages faculty, provides opportunities for streamlining processes, and protects current students from disruptions.

¹ For example, the CCC has established reciprocity with a number of critical partners, including a number of out-of-state institutions such as Historically Black Colleges and Universities (HBCUs).

- Foundational elements of a technology infrastructure. The CCN Task Force’s recommendations address technology needs and solutions to reconcile current data, increase data-informed decisions, expedite operational processes such as verifications of CCN Descriptor elements, and create a streamlined CCN repository linked to local curriculum software.
- A strategy for communicating well with all necessary stakeholders. The CCN Task Force recommends a body of work designed to ensure the communication of the CCN work to all stakeholder groups, operationalized within the Chancellor’s Office and supported in consultation with the CCN Council, its entities and other stakeholders.
- A detailed and aggressive CCN Implementation Timeline. The CCN Task Force’s recommendations include milestones for how the CCN work can continuously progress through groups of courses in a scheduled cycle (commencing 2024), while continuing to build toward a vision for a sustainable CCN infrastructure with CSU, UC and AICCU (all three currently not mandated to participate), which is necessary to ensure that all existing and future courses going through the CCN process are accepted and approved for transfer across segments.

The CCN Task Force acknowledges that CCN presents a historic opportunity to make the California higher educational system easier to navigate and finally addresses a long-recognized barrier that impedes countless students. While implementing a CCN system will not magically solve all of the pain points in the transfer student experience, it is necessary foundational work and, if done well, will enhance credit mobility and improve equitable associate and baccalaureate degree attainment. The CCN Task Force feels confident that the Recommended Implementation Plan described in this Summary Report can and will result in a CCN system that has the potential to greatly benefit students and meet the stated intent of the AB 1111 legislation. The CCN Task Force encourages all stakeholders to move forward quickly and responsibly, ensure funding and resources are available for implementing and sustaining an effort of this magnitude, and center the equitable success of our students.

I. INTRODUCTION

SERVING TODAY’S DIVERSE AND HIGHLY MOBILE LEARNERS

The California Community Colleges is the nation’s largest system of higher education, providing nearly 2 million students affordable and in-demand postsecondary education and training across its 116 colleges. Offering a wide array of programs and robust student support, the California Community Colleges meet today’s learners “where they are.” As a result, the system enrolls a remarkably diverse student body, including learners of diverse racial and ethnic backgrounds, learners from a broad age range, and learners from low-income backgrounds.

California community colleges meet today’s students “where they are.”¹

69% of students are people of diverse ethnic backgrounds

47% of students do not pay fees

42.3% of students are adults over age 25

With its extensive reach, California community colleges have an important role to play in making a postsecondary credential accessible and preparing learners for in-demand jobs in a global economy. This includes providing a clear and efficient transfer pathway for those seeking a baccalaureate degree. In the 2019-20 academic year alone, more than 130,000 students successfully transferred from a California community college to a four-year institution.² The community college system’s role in making lower-division coursework broadly accessible and aligned to baccalaureate degree pathways is laid out in the California Master Plan for Higher Education. Today, one-half of all California State University (CSU) graduates and one-third of all University of California (UC) graduates began at a California community college.³

However, these are not the only transfer students that the community colleges produce. Today’s learners complete coursework across multiple California community colleges – sometimes enrolling at more than one college simultaneously for various reasons. On average, 45% of California community college graduates who completed associate degrees over the last decade completed coursework at more than one California community college.⁴ As students become increasingly mobile, it is imperative that they are able to easily identify, enroll in, transfer, and apply their California community college courses to their identified program of interest.

1 California Community Colleges Chancellor’s Office. 2023. Key Facts. <https://www.cccco.edu/About-Us/Key-Facts>

2 Ibid.

3 Ibid.

4 Common Course Numbering Task Force. October 2022. “Understanding Within-System Mobility and Implications for AB 1111.” <https://www.cccco.edu/-/media/CCCO-Website/Files/ccn-taskforce-dii-a11y.pdf?la=en&hash=E9B2ADD936C091AFBEDA32A0536B4EA1861F4914>

COURSE NUMBERING SYSTEMS: CUTTING THROUGH THE COURSE TRANSFER AND ARTICULATION CONFUSION

Students who take courses across more than one college are more likely to end up with excess units from taking courses that are duplicative or not applicable to their chosen degree path.¹ This is not surprising considering that the 73 independent college districts of the California Community Colleges maintain local, unique course numbering systems for more than 40,000 general education and transfer pathway courses.² Deciphering which courses are equivalent across colleges and understanding how these courses apply to requirements of a particular degree pathway can confuse even the savviest of students and most experienced of counselors.

Excess units cost learners valuable time and money and can deter them from reaching their educational goals, and the Chancellor’s Office has found inequities in who accrues excess units by age, race and ethnicity, and gender.³

Replacing the current disparate, locally-developed course numbering systems with one CCN system will cut through the confusion, and can improve the transfer student experience, support the mobility of their units across work and learning, and help today’s highly mobile students reach their educational goals more efficiently.

RENEWED URGENCY TO IMPROVE COURSE TRANSFER

Research makes clear that transfer-intending students continue to face significant barriers to success, and there are deep and persistent inequities by race and ethnicity in transfer student outcomes. The Public Policy Institute of California reports that:

“Only 19 percent of students with a stated goal of transferring or attaining a degree transfer within four years; 28 percent do so within six years... Racial inequities in the composition of transfer students are particularly concerning. While Latino students account for 51 percent of students who declare a degree/transfer goal, they make up 35 percent of those who transfer within four years; African American students represent 7 and 5 percent, respectively.”⁴

The urgency to improve the student transfer experience comes from both within the California Community Colleges and from the external environment. For the past six years, California community college faculty, staff and administrators have worked with laser focus

1 California Community Colleges Chancellor’s Office. December 2022. Common Course Numbering Landscape Scan. <https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806>

2 Ibid.

3 Ibid.

4 Cuellar Mejia, M., Johnson, H., Perez, C.A. & Jackson, J. 2023. Strengthening California’s Transfer Pathway. Public Policy Institute of California. <https://www.ppic.org/publication/strengthening-californias-transfer-pathway/>

to advance student success and achieve the equity-centered goals of the Vision for Success, the system’s guiding framework that was adopted by the Board of Governors in 2017.

VISION FOR SUCCESS GOALS¹

1. Increase completion of degrees, credentials, certificates, and job-specific skill sets by 20% between 2017 and 2022;
2. Increase transfers to UC and CSU by 35% between 2017 and 2022;
3. Decrease the average number of credits accumulated by associate’s degree earners to 79 credits by 2022 (down from an average of 87 credits in 2017);
4. Increase the number of exiting CTE students employed in their field of study to 76% by 2022 (up from 60% in 2017);
5. Reduce equity gaps by 40% across all the above measures by 2022, and fully close those gaps by 2027; and
6. Close regional gaps across all of the above measures by 2027.

A commitment to these goals continues as [Vision 2030](#) for the California Community Colleges is currently being further refined, providing a framework to advance student success, access, support and socio-economic mobility with equity.

Across our campuses, there have been numerous and multi-pronged efforts to address excess units and improve equitable transfer student outcomes, including targeted efforts to address course numbering. These include systemwide initiatives like the Academic Senate for California Community Colleges (ASCCC)-led Course Identification Numbering System (C-ID) and local district-wide CCN initiatives. While data continue to suggest that transfer students face significant barriers to success, and there has been real interest in and commitment to developing clear information and strong transfer pathways, real structural barriers have inhibited efforts from achieving scale systemwide. Notably, while there have been at least three other efforts to build CCN systems since the 1980s, these efforts have historically been under-resourced and have not resulted in student-facing common course numbering across all of the segments of higher education.

COMMON COURSE NUMBERING LEGISLATION²

- SB 851 (1983): Required CCN but led to a report asserting that CCN would not be cost effective. (A Senate bill advanced the implementation of Course Articulation Numbering (CAN) first piloted in 1982 and codified in 1995.)

1 California Community Colleges Chancellor’s Office. 2023. Vision Goals and Core Commitments. <https://www.cccco.edu/About-Us/Vision-2030/outcomes-and-metrics>

2 See more at California Community Colleges Chancellor’s Office. December 2022. Common Course Numbering Landscape Scan. <https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806>

- SB 450 (Solis, 1995): Required CCN but led to a report that CCN was not feasible due to the excessive cost of implementation.
- SB 1415 (Brulte, 2004): Required CCN and led to the development and implementation of the C-ID Course Identification Numbering System (led by ASCCC).
- AB 1111 (Berman, 2021): Required California community colleges to adopt a student-facing CCN system.

Meanwhile, political leaders and external community stakeholders have shown greater interest in improving transfer as a way to equitably increase degree attainment in California. Governor Newsom’s Recovery with Equity Task Force recently elevated the idea of a CCN system as a necessary element of a highly integrated postsecondary ecosystem that supports all learners.¹ This idea evolved with Assemblymember Marc Berman in his [Assembly Bill 1111 \(AB 1111\)](#), which calls on the California community colleges to adopt a CCN system in order to “streamline transfer from two- to four-year postsecondary educational institutions and reduce excess credit (unit) accumulation.” Signed into law in 2021, AB 1111 requires that, “on or before July 1, 2024, both of the following shall occur:

- A. The California Community Colleges shall adopt a common course numbering system for all general education requirement courses and transfer pathway courses.
- B. Each community college campus shall incorporate common course numbers from the adopted common course numbering system in its catalog.”²

AB 1111 further stipulates that “the common course numbering system [...] be student-facing [...] and ensure that comparable courses across all community colleges have the same course number.”

To spur this effort, the legislature appropriated \$10 million in one-time funding under the [Budget Act of 2021](#) to establish a work group to guide the design and implementation of the CCN system. As the entity responsible for maintaining compliance with CCC state legislative mandates, the Chancellor’s Office formed the AB 1111 Common Course Numbering Task Force (CCN Task Force) to serve as this work group. Further, the legislature appropriated \$105 million in one-time funds within the 2022-23 budget for allocation to California Community Colleges districts to support implementation.³

The initial funding already appropriated by the legislature is critical to helping the California Community Colleges implement this new system, and a long-term funding plan that is inclusive of support for at least the UC, CSU and AICCU’s member institutions is necessary to ensure sustained success. The current funding, while significant, will not support completion

1 California Governor’s Council for Post-Secondary Education. 2021. Recovery With Equity: A Roadmap for Higher Education After the Pandemic. Taskforce Report. <https://careereducation.gov.ca.gov/initiatives/recovery-with-equity/>

2 See California Education Code 66725.5.

3 California Community Colleges Chancellor’s Office. December 2022. Common Course Numbering Landscape Scan. <https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806>

and sustainability of the new student-facing common course numbering system. Appendix II indicates funding gaps for this intersegmental work.

This presents an historic opportunity to make our colleges easier to navigate and finally address a long-recognized barrier that impedes countless students. While implementing a CCN system will not magically solve all of the challenges in the transfer student experience, it is necessary foundational work from which we can continue to build. In fact, representatives from several postsecondary systems that have implemented CCN report that CCN is beneficial for students and for state and institutional stakeholders.¹

Implementing CCN is necessary foundational work, but it is also hard work. Implementing CCN successfully and improving the transfer student experience and outcomes will require participation by four-year transfer partners; the adjustment of policies and processes, particularly around articulation; and ongoing maintenance that can never be considered “done.” The road ahead is challenging, but it can be accomplished.

1 Ibid.

II. ABOUT THE CCN TASK FORCE

The Chancellor’s Office is committed to honoring the professional and lived expertise of our faculty, staff, students, and campus leaders who engage with these issues every day. In 2022, in collaboration with key stakeholder groups the Chancellor’s Office assembled the CCN Task Force to develop the student-centered vision and implementation plan for the CCN system.

The CCN Task Force is charged with establishing:

- A definition of a student-facing common course numbering system for all general education requirement courses and transfer pathway courses; and
- A recommended implementation plan to guide efforts to establish a common course numbering system that meets the requirements of AB 1111.

MEMBERSHIP

Reflecting the California Community Colleges’ participatory governance system, the CCN Task Force includes broad and diverse representation from across the system’s 73 districts and 116 colleges. Members reflect key stakeholder groups invested in and intimately knowledgeable about transfer student success, including: community college students themselves; representatives from the Academic Senate for California Community Colleges; administrative leaders, including representatives from the California Community Colleges Chief Instructional Officers; California Community Colleges Registrars and Admissions Officers; student service professionals; student success deans; technology officers; institutional effectiveness researchers; chief executive officers; and trustees.

In addition, the Chancellor’s Office recognizes that any effort aimed at improving the transfer student experience must also have active participation and participation from the four-year sector. The CCN Task Force thus includes – and has benefited from the robust engagement of – representatives from the AICCU, the CSU and the UC.

LEADERSHIP

The CCN Task Force is collaboratively led by two co-chairs: Virginia “Ginni” May, Past President of the Academic Senate for CCC and Professor of Mathematics and Statistics at Sacramento City College, and Tram Vo-Kumamoto, Past President of the CCC Chief Instructional Officers and Vice President of Instruction at Saddleback College. Their leadership and coordination with the Chancellor’s Office over the past two years was instrumental in driving the CCN Task Force’s work forward.

CCN Task Force Members

Stakeholder Group	# of Representatives	Name	Title	College
California Community Colleges Students	2	Robert Alexander	VP, Regional Affairs, Student Senate for California Community College	San Bernardino Valley College
		[Vacant]		
California Community Colleges Faculty	4	Ginni May (co-chair)	Past President, ASCCC; and Professor of Mathematics and Statistic	Sacramento City College
		Cheryl Aschenbach	President, ASCCC; and Professor of English	Lassen College
		John Freitas	Articulation Officer	Los Angeles City College
		Tiffany Tran	Articulation Officer	Irvine Valley College
California Community Colleges Admissions and Registrar Officers	2	Victor DeVore	Dean, Student Services	San Diego CCD
		Meredith Marasco	Evaluator	Butte College
California Community Colleges Chief Instructional Officers	2	Tram Vo-Kumamoto (co-chair)	Past President, California Community Colleges Chief Instructional Officers and VP, Instruction	Saddleback College
		Isabel O'Connor	VP, Instruction	San Diego Mesa College
California Community Colleges Chief Student Services Officers	1	Robyn Brammer (through 9/23) Nicole Porter (began 10/23)	VP, Student Services Interim VP of Student Services & Equity	Cerritos College American River College

Stakeholder Group	# of Representatives	Name	Title	College
California Community Colleges Technology Officers	2	Rachel Stamm	Curriculum Systems Consultant	CCC Tech Center
		Rupinder Bhatia	Executive Director, Information Technology	San Jose-Evergreen Community College District
California Community Colleges Researchers	1	Jeremy Brown	Vice President of Instruction	Yuba College
California Community Colleges Chief Executive Officers	1	Marilyn Flores	Superintendent-President	Rio Hondo College
California Community Colleges Trustees	1	Deborah Ikeda	Trustee	State Center Community College District
California Community Colleges Chancellor's Office	2	Marci Sanchez	Assistant Director of Undergraduate Transfer Programs	CSU Office of the Chancellor
		Kristin Van Gaasbeck	Director, Liberal Studies and Social Science Programs; and Professor of Economics	CSU Sacramento
University of California	2	Chase Fischerhall	Associate Director, A-G and Transfer Articulation Policy	UC Office of the President
		[Vacant]		
Association of Independent California Colleges and Universities	1	Tyler Vaughan-Gomez	Assistant Registrar for Transfer and Articulation	University of Redlands

TIMELINE OF CCN TASK FORCE ACTIVITIES

Beginning in September 2022, the CCN Task Force began meeting bi-monthly for a total of eight public meetings to create a definition of the CCN system and develop a framework to guide implementation of this new system across all California community college campuses by July 1, 2024.

2021	2022-2023
October 6: Bill signed into law and Ed Code 66725.5 established	Chancellor’s Office convened the CCN Task Force in eight public meetings from September 2022 through December 2023. CCN Task Force developed its recommendations for a rolling systemwide implementation plan, including a recommended governance structure and timeline with milestones and activities
Budget Act of 2021: \$10 million one-time budget designed for CCCCCO to establish a work group, known as the CCN Task Force	January 2022: \$105 million one-time funds for CCN implementation in 2022-2023 budget year (See Appendix II for details.)

With facilitation support from [Sova](#), CCN Task Force members engaged in active listening and focused learning with a robust set of content experts, partners, and stakeholders statewide. First, the CCN Task Force grounded its work with an assessment of the available data; the Chancellor’s presented quantitative data on student mobility within the California Community Colleges, and Sova presented the findings of the landscape scan, which included results from interviews and listening sessions with more than 100 stakeholders across California and the nation; a survey of more than 850 stakeholders representing 112 of the 116 physical California community colleges; and reviews and analyses of existing literature and research. The RP Group also presented results from a systemwide survey to understand the status and design of existing California Community Colleges CCN systems. CCN Task Force members also heard from California community college students to understand how students presently experience course transfer, and their ideas for a new system.

Next, the CCN Task Force consulted with practitioners from multiple college districts within the California Community Colleges that have implemented a CCN system for the district to better understand lessons learned from implementation, key questions to pose, and considerations to take into account for a systemwide CCN rollout. The CCN Task Force also contemplated complex questions regarding how a CCN system for the two-year sector could articulate to the four-year sector and align with other ongoing transfer reform efforts, such as [AB 928](#) implementation.¹

Finally, the CCN Task Force established work streams to accelerate progress and conferred on how to present the final implementation plan to system stakeholders and to the legislature.

1 California State Legislature. 2021. Assembly Bill No. 928, Student Transfer Achievement Reform Act of 2021: Associate Degree for Transfer Intersegmental Implementation Committee. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB928

CCN Task Force Meeting Topics

Meeting Date	Agenda Items
September 29, 2022	<ul style="list-style-type: none"> • Clarify the legislative charge of the CCN Task Force, expectations and roles of members and available facilitation support. • Review current data on community college transfer student success. • Introduction to the landscape scan on CCN, including lessons from other states. • Begin to define a student-facing CCN system for the California Community Colleges.
November 29, 2022	<ul style="list-style-type: none"> • Hear directly from students to understand their experiences with course transfer. • Learn from colleagues involved in prior CCN efforts, including representatives from the San Diego Community College District and Peralta Community College District and a discussion of the C-ID system. • Define the CCN Task Force’s role in AB 1111 implementation and begin to identify appropriate elements and work streams for the implementation plan.
February 23, 2023	<ul style="list-style-type: none"> • Learn from colleagues involved in prior CCN efforts, with representatives from the Los Angeles Community College District and the Los Rios Community College District. • Engage in learning around four-year articulation processes. • Consult with RP Group on CCN Task Force research needs.

Meeting Date	Agenda Items
April 27, 2023	<ul style="list-style-type: none"> • Review RP Group preliminary research findings from a survey of California community college districts with CCN. • Clarify outcomes for implementation planning. • Define planning work streams for the implementation.
June 22, 2023	<ul style="list-style-type: none"> • Discuss aligning course elements to CCN definition and schema. • Review updated research from the RP Group. • Discuss CCN Task Force communications.
August 31, 2023	<ul style="list-style-type: none"> • Review CCN Task Force summary report outline and timeline for development. • Discuss public draft of a report entitled “CCN Task Force Draft Outline, Findings and Considerations for the Summary Report.”
October 18, 2023	<ul style="list-style-type: none"> • Review public draft of the CCN Task Force’s Summary Report, which includes the Recommended Implementation Plan.
December 7, 2023	<ul style="list-style-type: none"> • Finalize the CCN Task Force’s Summary Report, which includes the Recommended Implementation Plan.

III. RECOMMENDED IMPLEMENTATION PLAN

The following is the CCN Task Force’s Recommended Implementation Plan. The CCN Task Force intends for these recommendations to guide support for systemwide implementation, while acknowledging that an implementation of this magnitude will be iterative and colleges need flexibility to respond to lessons learned and changes in context that require adjustments in strategic direction.

A. SCOPE AND DEFINITION OF STUDENT-FACING COMMON COURSE NUMBERING

The CCN Task Force’s commitment to building a student-facing CCN system stems from a shared belief that requiring students to navigate the current complex course structures of the California Community Colleges, involving 116 colleges and more than 40,000 general education and transfer pathway courses, is confusing and is a structurally induced factor contributing to inequities in student outcomes. Reducing that confusion and providing clarity to our students will be hard work, but it is necessary and it is the right thing to do. CCN is an indispensable piece of the student success and equity puzzle, and an historic opportunity for California community colleges to work together and show leadership as the largest postsecondary system in the nation.

To better support students and meet the transfer-focused intent of the legislation, the CCN Task Force defines student-facing CCN as a system that ensures that all students can identify courses across the system that are comparable and therefore have the same transfer and articulation agreements for general education and major requirements across the California Community Colleges and also to the CSU, the UC and independent colleges and universities in California regardless of the community college sending institution. To achieve this goal, the CCN Task Force has outlined a minimum set of elements that common courses should share, including a number of elements that are vital for ensuring articulation. Proposing a minimum set of elements ensures that faculty continue to have appropriate influence over the content of their courses (see “E.1.d Implementation Recommendation - CCN Descriptors” for additional details).

Additional necessary features of a student-facing CCN, emerging from CCN Task Force discussions, include:

- Is easily navigable and self-serviceable, so that students can use the system with confidence on their own.
- Provides students a single, transparent source of course information within the resources students are most likely to use (i.e., in the catalog and schedule of classes), inclusive of direct access to clear information about the transferability and applicability of these courses throughout California institutions.

B. A NEW VISION FOR INTERSEGMENTAL TRANSFER, ARTICULATION AND COLLABORATION IN CALIFORNIA

The CCN Task Force feels great urgency to address the deep inequities in transfer student outcomes in California. The CCN Task Force believes CCN is an indispensable piece of the student success puzzle, but CCN at California community colleges alone will not be sufficient to produce fair and equitable opportunity for Californians.

The CCN Task Force has thus designed a robust CCN system to be implemented in concert with a new vision for dramatically improved transfer and articulation across the state of California. To realize that vision, the CCN Task Force is calling for a resourced infrastructure for intersegmental faculty collaboration – inclusive of faculty from the California Community Colleges, the UC, the CSU and AICCU’s member institutions, as well as other critical transfer partners – that sets out a new way of approaching transfer.

The CCN Task Force acknowledges that there is a tension between the academic freedom of faculty, the autonomy of California community colleges to set their own curriculum, and the desire to make sure that equivalent courses transfer similarly across segments and apply to student completion of programs. This is not an insurmountable tension, but it is real and is best addressed by creating the opportunity for faculty to work together across segments on how to best support students.

By working together, with all needed partners at the table, the state of California can achieve transparent and effective transfer pathways that maximize other state investments in areas such as student aid, the California General Education Transfer Curriculum (Cal-GETC, established by AB928 (Berman, 2021)) and the Associate Degree for Transfer (ADT). An effective infrastructure for intersegmental faculty collaboration will require the support of senior leadership across the segments as well as incentives for faculty from all of the segments to engage in this hard work.

This new vision strategically aligns with similar discussions and recommendations stemming from the [AB928 Associate Degree for Transfer Intersegmental Implementation Committee](#). The CCN Task Force endorses the recommendation of the AB928 Committee specifically related to the resourcing of an Intersegmental Course Articulation and Pathways Development infrastructure. That recommendation reads:

Recommendation 1. Resource an Intersegmental Course Articulation and Pathways Development infrastructure, building upon existing structures, to oversee and facilitate the process of course review, pathways development, and determinations of similarity.¹ This infrastructure would include incentives for the full participation from and leadership

1 Currently, after a Transfer Model Curriculum (TMC) template is created or revised in a major, each CSU campus determines if there is a baccalaureate degree in a similar major to the TMC. This determination of “similarity” ensures that students who earn the Associate Degree for Transfer (ADT), that is created under the parameters of that TMC, are guaranteed admission in that similar major at one of the CSU campuses offering that major and will be required to complete no more than 60 units after transfer to earn the baccalaureate degree that is deemed “similar” to the major of the ADT if the student stays on that ADT pathway.

by faculty, and active membership of students to provide input, from the California Community Colleges, the University of California (UC), California State University (CSU) and Association of Independent California Colleges and Universities (AICCU) member institutions to maximize the potential of the Associate Degree for Transfer (ADT) and its guarantee of admissions at participating four-year institutions.¹

Similar to the focus of the AB928 Committee, a strong implementation of CCN is dependent on successful intersegmental work of faculty, staff, administration and leadership. The two bodies of work are complementary. If done well, the implementation of a new student-facing common course numbering system should result in the easy identification and consistent transferability of commonly numbered courses across the California Community Colleges and to the UC, CSU and AICCU institutions. This streamlining of course identification and transferability lays a strong foundation for ongoing efforts by the AB928 Committee to ensure that the Associate Degree for Transfer is becoming the primary transfer pathway for students statewide.

If implemented well, AB928 and AB1111 present a new opportunity for the state of California by creating a solid infrastructure for open, consistent and transparent collaboration. An investment of resources to build an Intersegmental Course Articulation and Pathways Development infrastructure should save students and the state money over time, in the form of increased student success, reduced taking of unnecessary duplicated courses and the sunseting of outdated technology systems that are not interoperable across the system.

C. EXPECTED OUTCOMES OF STUDENT-FACING CCN

The CCN Task Force expects that implementation of a student-facing CCN system, when done well, will achieve the following outcomes:

- For students that attend multiple California community colleges, lower division general education and major preparation requirements will be easily identified within the California Community Colleges as comparable in order to eliminate students unnecessarily retaking a course when taking courses across multiple community colleges.
- The CCN Task Force intends for articulation to be improved for transfer into four-year public and independent universities as well. Current law would benefit those students that transfer within, or move around within, the California Community Colleges, but participation by the faculty at the CSU, UC and independent colleges and universities can lead to the updating of current articulation practices in order for CCN to benefit students transferring to and from those institutions.

¹ Associate Degree for Transfer Intersegmental Implementation Committee. (2023). 2023 Final Report and Recommendations. Available at <https://www.ab928committee.org/resources>

- This process and statewide collaboration will:
 - Bring increased transparency and real efforts to address the structural, systemic and intersegmental barriers that students face regarding transfer and credit mobility.
 - Make progress on the following Vision for Success goals: reduce unit accumulation, improve transfer rates, and increase credential completion across California community colleges by ensuring that students 1) understand how a course may or may not transfer and articulate within the system and to CSU, UC and members of institutions of the AICCU, and 2) take the courses they need to meet their educational goals regardless of the college where the courses were taken.¹
 - Demand attention to and provide resources for needed improvements in a number of related areas, such as upgrading and aligning technology systems and developing processes that facilitate timely sharing of information among California community colleges, and across other segments of postsecondary education.
- In concert with other important student success efforts underway across the state, such as guided pathways implementation, disaggregated student outcomes data will demonstrate that equity gaps are closing and transfer student outcomes are improving.

D. OVERARCHING GUIDING PRINCIPLES FOR THE IMPLEMENTATION OF STUDENT-FACING CCN

The CCN Task Force expects those engaged in advancing the implementation of a student-facing CCN system to:

- Embrace the CCN Task Force’s vision of a robust CCN system implemented in concert with a new vision for dramatically improved transfer and articulation across the state of California, supported by a resourced infrastructure for intersegmental faculty collaboration.
- Ensure early, strong and consistent participation by faculty from the California Community Colleges, UC and CSU and member institutions of the AICCU (and other critical transfer partners²) to achieve a new vision for transfer and articulation in California.
- Align to the CCN Task Force’s definition of a student-facing CCN system, recognize the value of the high-level outcomes as articulated by the CCN Task Force, and embrace the CCN Task Force’s recommendations (e.g., CCN Descriptor Elements).

¹ California Community Colleges Chancellor’s Office. 2021. Update to the Vision for Success. <https://www.cccco.edu/-/media/CCCCO-Website/Reports/vision-for-success-update-2021-a11y.pdf>

² For example, the California Community Colleges has established reciprocity with a number of critical partners, including a number of out-of-state institutions such as Historically Black Colleges and Universities (HBCUs).

- Design solutions that balance faculty, college, and system autonomies with student needs.
- Commit to a strong implementation of student-facing CCN to better support students.
- Apply principles and guidelines of [Universal Design](#) throughout this work.
- Embrace moving to a single data management system across the California Community Colleges, that houses all CCN Descriptors, verification processes, etc., as an aspirational goal, which aligns with the California Community Colleges’ Vision 2030 for the creation of a centralized data system that better serves both staff and students.

E. CCN SYSTEM GOVERNANCE

E.1 CCN Governance Structure

The following is a recommended governance structure to support a three-year implementation process.

E.1.a California Community Colleges Chancellor’s Office

The Chancellor’s Office is responsible for system-level support and coordination, with oversight of the dedicated resources for the administration and operational aspects of implementation.

E.1.b CCN Council: Charge and Membership

At the highest level, the implementation of the new CCN system should be overseen by the CCN Council. The CCN Council’s recommended charge is:

The CCN Council, operating as a Chancellor’s Office participatory governance group¹ inclusive of intersegmental leadership from four-year transfer partners, sets strategic direction and goals, guides the work of the various implementation work groups, and identifies policy barriers to strong implementation of CCN. The assumption is that the CCN Council would work for approximately three years to advance a strong and effective CCN implementation.

The CCN Council should be focused on CCN, and on processes and actions that are within the control of the California Community Colleges. As such, the CCN Council cannot mandate articulation processes with transfer institutions. The CCN Council can encourage, facilitate, and support student-centered processes and procedures for determining course articulation in a collaborative fashion with transfer institutions such as CSU, UC and members of the AICCU. That said, the CCN Council ensures CCN is established in a way that is best suited for improved course articulation and acceptance by four-year institutions and fully engages

1 California Community Colleges. January 2021. 2020-2021 Participatory Governance Handbook. <https://www.cccco.edu/-/media/CCCCO-Website/Files/BOG/20202021participatorygovernancehandbookfinala11y4882581.pdf?la=en&hash=845F8B172FAD963AAB447A01F98103936D8D9782>

decision-makers from the requisite four-year systems to participate in CCN design and implementation and to advocate for policy changes within their systems and institutions that will help ensure CCN has the desired positive impact on course articulation and student transfer success.

The CCN Council makes every effort to reach consensus in decision-making. If consensus cannot be reached, then decisions shall be made by a polling of membership and diverse opinions will be documented.

For constituency group appointments, the CCN Task Force offers the following considerations. Key goals for appointments include to ensure broad representation and to balance regional representation in order to meet the Council's charge and implementation of a strong CCN system. While this list is not exhaustive, the CCN Task Force stresses the importance of both student and faculty engagement in this work.

- California Community Colleges Chancellor's Office (Chancellor's Office)
- Academic Senate for California Community Colleges (ASCCC)
- Student Senate for California Community Colleges (SSCCC)
- Chief Instructional Officers (CCCCIO)
- Chief Student Services Officers (CSSO)
- Chief Executive Officers (CEO)
- Admission and Registrar Officers
- Technology Officers
- Chancellor's Office ESLEI, Data and Research Leads
- Trustees
- California Community Colleges, CSU, UC, and AICCU Students
- California Community Colleges, CSU, UC, and AICCU Faculty
- California Community Colleges, CSU, UC, and AICCU Leadership
- California Community Colleges, CSU, UC, and AICCU Articulation Officers (AO)
- California Community Colleges Curriculum Specialist
- California Community Colleges Transfer Center Leadership
- California Community Colleges Counselors
- Technology related groups such as:

- Course Identification Number System (C-ID) Leadership
- ASSIST Leadership
- COCI Specialist
- CISOA Board
- Other technology-matter expertise as needed
- Coordination with groups such as:
 - California Community Colleges Curriculum Committee (5C)
 - Intersegmental Curriculum Council (ICC) (formerly the Intersegmental Curriculum Workgroup)
 - General Education Advisory Committee (GEAC)
 - Intersegmental Committee of the Academic Senates (ICAS)
 - California Association of Community College Registrars and Admissions Officers (CACCRAO)
 - California Intersegmental Articulation Council (CIAC)

CCN Council members should operate according to participatory governance principles and collaborate with system stakeholder groups on accomplishing CCN implementation.

It is important to note that the work of the CCN implementation will take place in work groups (see below for more details) that will allow for – and indeed require – statewide representation with many opportunities for engagement and leadership.

E.1.c Steering Committee of the CCN Council: Charge and Membership

The recommended charge of the Steering Committee is:

The Steering Committee, in coordination with the Chancellor’s Office CCN operations team (staff, contractors, etc.), informs the CCN Council’s agenda and facilitates its work to ensure progressive movement through CCN implementation. The Steering Committee is responsible for effective leadership and coordination of the CCN Council, through a process of soliciting agenda items from the full CCN Council and work group leads, drafting agendas, identifying content experts and research needed, and sending agendas out in advance of CCN Council meetings for review by other members.

The Task Force recommends for consideration a Steering Committee of four representatives, one each appointed by the following: Chancellor’s Office, ASCCC, Chief Instructional Officers (CIO) and Chief Student Services Officers (CSSO). The Steering Committee will be supported by necessary Chancellor’s Office staff and contractors.

E.1.d CCN Work Groups

The CCN Task Force is recommending two work groups wherein the detailed complexities of CCN implementation will be addressed. Within each of these work groups there may be additional teams/subgroups (e.g., the CCN Development Work Group will coordinate the intersegmental disciplinary teams resourced to complete the alignment of courses to the CCN definition and schema). The work groups are:

- CCN Development Work Group; and
- CCN Technology and Processes Work Group.

Details on each of these work groups, including their recommended charges, membership, guiding principles and key recommendations from the CCN Task Force for how they approach their work, follow in Section F.

E.2 Guiding Principles

The CCN Task Force expects those engaged in the CCN Council and the work groups to:

- Embrace the iterative process of this work and regularly assess progress and modify direction as needed with a goal of continuous improvement.
- Maintain the high-level proposed governance structure for a minimum of three years. In maintaining the structure, it will be important to review and assess roles and tasks annually, recommend, as appropriate, membership rotation for forward moving structure, modify or sunset working sub-groups, and engage advisory groups.
- Advocate for funding for implementation of the work. Effective implementation will require resources, particularly for: an intersegmental infrastructure for CCN; faculty descriptor and course work; staff (classified professionals, faculty and administrators) work to implement new processes and technology systems; and new technology purchases and implementation.
- Align the CCN implementation to other critical efforts happening statewide, such as the recommendations of the AB 928 Associate Degree for Transfer Intersegmental Implementation Committee.
- Ensure that there is a process to maintain critical data related to historical course numbering and articulation information through collaboration between key partners such as the ASCCC and the Chancellor's Office.
- Work to embrace existing structures when appropriate and feasible, rather than creating new structures.

- Design a structure such that, as progress is made in the initial three-year implementation period, the CCN processes would run in parallel with the C-ID processes until CCN is well-established and assessment can be made to determine the opportunities for the CCN structure to complement and/or integrate with the C-ID structure.

F. DETAILS ON THE CCN WORK GROUPS

The CCN Task Force identified two work groups for implementation. Details on each of their recommended charges, membership, guiding principles and implementation recommendations are in items F.1 and F.2. The groups are:

- CCN Development Work Group; and
- CCN Technology and Processes Work Group.

F.1 CCN Development Work Group

F.1.a Charge and Membership

The recommended charge of the CCN Development Work Group is:

The CCN Development Work Group makes design recommendations to the CCN Council for the infrastructure and processes needed for curricular coordination to develop a common course descriptor and assign common course numbers. Of critical importance is that the CCN Development Work Group coordinates, supports and guides the intersegmental disciplinary teams resourced to complete the hard work of creating, adopting and implementing the CCN Descriptor. Additionally, this work group engages stakeholders and researches the impact of all California Community Colleges institutions adopting the CCN system.

Membership in the CCN Development Work Group will include stakeholders who are implicated in the effort to align courses to the CCN definition and schema, particularly community college faculty, articulation officers, campus academic leadership, and faculty and other representatives from the CSU, UC and independent colleges and universities.

F.1.b Guiding Principles

The CCN Task Force calls upon those implementing the activities called for in this implementation plan to embrace the following guiding principles:

- Support the vision that the development of CCN Descriptors supports articulation in California’s higher education ecosystem to function in a new way.
- As much as possible, do not increase the amount or level of difficulty of the work colleges already have in their queue. When at all possible, reduce tasks and streamline processes.
- Ensure broad intersegmental faculty participation from broad subject areas from the very beginning of the CCN implementation.

- Support the aspiration for the acceptance of the CCN Descriptors to serve as the primary pathway to system articulation of individual courses.
- Agree that student-facing CCN will require a minimum set of elements in a Course Outline of Record (COR). Honor academic freedom, as defined by American Association of University Professors (AAUP) and in [Protecting Academic Freedom During a Time of Significant Change](#) (ASCCC, 2020), by providing faculty complete autonomy in how they engage students in the delivery and assessment of the course content.
- Ensure CCN Descriptors (foundational documents that define the minimum common elements of a course for CCN; see below for additional details) will be developed by faculty (General Education and Subject Matter Experts) at the community college level in collaboration with CSU UC, and AICCU faculty, and supported by appropriate administrators and staff. As a result of a strong collaborative development process, the desired outcomes include:
 - CCN Descriptors will then be adopted at the community college systemwide level.
 - Participating CSU, UC and AICCU campuses will evaluate and determine application opportunities for each CCN descriptor and raise any needed changes to resolve any application issues.
 - Four-year transfer institutions having accepted a CCN Descriptor as sufficiently aligned with their equivalent course will honor course-to-course articulation with a course from any California community college that has been aligned with the CCN Descriptor.
- Establish a collaborative and innovative spirit that provides opportunity to use modified processes to align courses that have already been through formal approval processes and that have faculty input throughout development. For example, in cases where curriculum does not change and courses have already been approved, move to implementation without going through an onerous review and approval process.
- Related to the to-be-developed CCN taxonomy in particular:
 - Ensure the taxonomy immediately and clearly identifies courses that are commonly numbered.
 - Design a system that provides all information the course number needs to represent and let that determine the number of digits. Then work to resolve downstream impacts.

- Minimize the number of digits from the student perspective with the least impact on institutional workloads.
 - Provide students with clear communication regarding course identification, with a commitment to numbering and naming conventions that are easy to navigate independently and offer consistency across California Community Colleges.

Aligning CCN Work to Colleges on the Quarter System

In the California Community Colleges, there are three colleges whose academic calendars are based on the quarter system. Many of the recommendations in this document align best with colleges on the semester system and may need modifications for inclusion of the quarter-system courses, processes and structures. The CCN Task Force recommends that the CCN Council establish a team to evaluate the CCN Task Force Report in relation to its impact on students and colleges in the quarter system, and to make recommendations on how to expand the implementation plan to include these new ideas. Examples of semester-to-quarter system differences impacted by this work:

- Descriptors developed for semester-courses will not directly translate to quarter-courses.
- Two semester-courses may need to be bundled to create three quarter-courses.
- Course Taxonomy may need to address the differences between semester and quarter units.
- Transfer equivalencies will need to provide course and unit articulation for both semester- and quarter-courses.
- The design of technology solutions will need to be inclusive of the needs of institutions on the quarter system.

F.1.c Key Definitions Related to CCN Implementation

The following definitions were developed to establish a common understanding of key terminology in the CCN work.

- **Articulation:** The process of developing a formal, written agreement that identifies courses (or sequences of courses) on a “sending” campus that are comparable to, and acceptable in lieu of, specific courses at a “receiving” campus.¹
- **Comparable:** Course (as a whole) has a minimum standard in common with another course, as demonstrated by elements included in the CCN Descriptor, to the degree needed for the course to be accepted in lieu of the receiving institution’s course.

¹ Adapted from: California Intersegmental Articulation Council. Spring 2013. California Articulation: Policies and Procedures Handbook. https://www.csusb.edu/sites/default/files/upload/file/CIAC_Handbook_Spring_2013.pdf

- Identical (Relates to elements of a course): Exactly the same.
- Equivalent (Relates to elements of a course): Hold equal weight, worth, and value but are not necessarily identically worded.
- Transferable: A course completed at one college or university that is then granted baccalaureate credit by the receiving institution upon review by that institution, be it a California community college, CSU, UC, AICCU member or any other institution of higher education.
- Applicability: How the units of a transferable course are applied to specific degree requirements, such as general education or major requirements, at the receiving institution.
- Duplication: The result of a student completing courses that are comparable or courses with similar or overlapping content that fulfill the same requirement.

The following definitions are to support consistent interpretation of this report’s content:

- CCN Descriptor: A CCN Descriptor is a foundational document that defines the common minimum components of a course outline of record (COR) for CCN. The CCN Descriptor Components include course number, course title, unit amounts, course description, prerequisites, course content and student learning outcomes or objectives (Note: California community colleges use “objectives” rather than “student learning outcomes” because course objectives are defined as a required component of the course outline of record per [Title 5 Sec. 55002](#) and the [Program and Course Approval Handbook](#). It is common for four-year institutions to use the term “student learning outcomes” in the same way as the term “objectives” is used by the community colleges).
- Components of Course Outlines of Record: For the purpose of this report and consistent with the 8th edition of the [Program and Course Approval Handbook](#), course outlines of record (COR) will include the components required by Title 5 55002, including those components comprising a CCN Descriptor.
- CCN-Aligned Course: This is a COR that has been developed based on a CCN Descriptor, has been deemed consistent with the CCN Descriptor, and is thus assigned the CCN number and related articulations.
- Curriculum: Curriculum, broadly defined, in the California Community Colleges, refers to all aspects of instruction. It is inclusive of courses, CORs, educational programs and the facilitation of learning within courses. The alignment of courses to the CCN system is a part of curriculum but not the totality.
- Educational Program: An educational program is a set of courses that together provide a focused field of study within a certificate or a degree.

F.1.d-g Implementation Recommendations

The implementation of a system as complex as common course numbering across 116 institutions and thousands of courses requires an equally complex array of implementation strategies. These strategies, while appearing disconnected at times, collectively support the implementation of a cohesive and comprehensive system.

The following implementation recommendations are described in detail below:

F.1.d Implementation Recommendation - CCN Descriptors

F.1.e Implementation Recommendation - Applicability for System-Developed CCN Descriptors

F.1.f Implementation Recommendation - CCN Taxonomy

F.1.g Implementation Recommendation - Common Course Descriptor Development

F.1.d Implementation Recommendation - CCN Descriptors

A CCN Descriptor is a foundational document that defines the common minimum elements of a course for CCN. The following table provides

CCN Descriptor Elements		Descriptor Elements Classification
Course Number		Identical
Course Title		Identical
Unit Amount (x semester, y quarter)		Adheres to an established minimum
Course Description	Part 1: Required	Identical
	Part 2: Optional	Expanded - local college discretion
Prerequisites, Corequisites, and Other Limitations on Enrollment		Identical
Course Content	Required Topics	Identical
	Optional Topic Expansion (Optional Additional Topics - defined as part of CCN Descriptor development.)	Additional details expanded - local college discretion

CCN Descriptor Elements		Descriptor Elements Classification
Student Learning Objectives/Outcomes	Required Objectives/ Outcome	Identical
	Optional Objectives/ Outcomes Expansion (Optional Additional Objectives/Outcomes - defined as part of CCN Descriptor Development)	Additional details expanded- local college discretion

In the spirit of supporting unique interests and styles of faculty, intersegmental faculty working together to develop CCN Descriptor elements are encouraged to write the elements in a way that provides faculty the opportunity to customize the students’ learning experience while meeting the requirements of the course content.

The recommended CCN Descriptor Elements table does not include all elements currently used for review of courses for transfer articulation. Notably, textbooks and assignments are not included. The CCN Task Force recommends that strong efforts are made by the intersegmental faculty groups to simplify the review of descriptor elements, as it adds to faculty workload and its current complexity may negatively affect students receiving transfer credits for CCC courses.

F.1.e Implementation Recommendation - Applicability for System-Developed CCN Descriptors

The following recommendations relate to the applicability of CCN-based courses to satisfy general education areas or to assure consistency of articulation.

General Education Applicability

This section describes recommendations for applicability of articulated courses to satisfy general education areas based on Cal-GETC standards.

The courses based on CCN Descriptors will be applied to the same general education areas as designated by the Cal-GETC review process for all students who:

- Complete courses at a California community college and transfer to another California community college; and
- Complete courses at a California community college and transfer to a CSU, UC or AICCU institution.

When a student who attended a CSU, UC, or AICCU campus transfers to a California community college, the community college system will reciprocate transferability and general education applicability of CSU, UC, and AICCU courses.

In the event that a receiving institution does not have the same area, another area may be selected as best aligns with Cal-GETC standards.

*Three instances for GE Applicability:

1. Full-certification of Cal-GETC results in acceptance as completion of all lower division general education requirements. Note: Cal-GETC implemented fall 2025 in line with CCN Phase I course enrollment.
2. For students without Cal-GETC certification: Individual courses with CCN Descriptors will be applied to the appropriate General Education Area based on Cal-GETC area approval for the CCN Descriptor.
3. No Cal-GETC certification: Courses that are not developed through the CCN process are based on institutional level course-to-course articulation or are evaluated by the receiving institution to identify how to best serve the student. This includes courses taken at institutions outside of California, courses taken before implementation of CCN, etc.

Receiving institutions may apply a course to a different GE area for which the course satisfies upon transcript evaluation if the change benefits the student and aligns with Cal-GETC standards (for example: US History to humanities or social science if approved in both of those Cal-GETC areas).

Course-to-Course Articulations

This section describes recommendations for applicability of CCN-aligned courses to course-to-course articulation.

The courses based on CCN Descriptors will be articulated identically for all students who:

- Complete courses at a California community college and transfer to another California community college; and
- Complete courses at a California community college and transfer to a CSU, UC or AICCU institution.

When a student who attended a CSU, UC, or AICCU campus transfers to a California community college, the community college will reciprocate transferability and general education applicability of CSU, UC and AICCU courses.

For a course that already has a course-to-course articulation, and has CCN approval, “identical” means the receiving institution will apply the CCN course-to-course articulation consistently for all students regardless of originating college.

Receiving institutions may apply an articulated CCN course to a different requirement upon transcript evaluation if the change benefits the student, does not result in duplication of courses, and does not require students to complete additional units/courses to satisfy degree requirements. This may be as a result of differing institutional degree requirements.

Course-to-Course Articulation Assumptions:

- For courses not developed through the CCN process that have a course-to-course articulation, then the receiving institution applies that articulation consistently.
- For courses not developed through CCN with no course-to-course articulation in place, courses are evaluated to identify how to best serve the student.

F.1.f Implementation Recommendation - CCN Taxonomy

This section provides recommendations for a taxonomy for the CCN system across the California community colleges. The CCN Task Force wishes to emphasize it is offering a DRAFT taxonomy that needs more work. The CCN Task Force recognizes that getting the taxonomy right is critical and that the taxonomy will impact major systems (e.g., Student Information Systems). Further development of this draft taxonomy should be a high priority as implementation begins.

Discussion of Current Taxonomies in Course Numbering Systems

Throughout the California Community Colleges, there is significant variability of numbering systems not only across the 116 institutions but also within a single institution. The technological data field [CB01](#) currently allows for 12 characters maximum for Subject Abbreviation and Number including spaces and dashes.¹ Here are samples of how numbering is currently done at California community colleges, noting that the subject number (CB01B) contained the largest variance between the three datasets.

(N= numerical digit, A = letter, 0 = placeholder)

→	NN	→	NNN.N	→	0NA	→	00NNAA
→	NNA	→	NNNA	→	0NNA	→	NNN-NNNNN
→	NNAA	→	NNNAA	→	00NA	→	NAAAA
→	NNN	→	NNNAAA	→	00NNA		

CONSIDERATIONS FOR CCN TAXONOMY

Based on the variability of current practices, the taxonomy system should include clear identification of the CCN component. Such an identification:

- Provides flexibility for managing local courses at individual or district institutions.
- Distinguishes the currently numbered courses from the CCN numbered courses throughout the various systems that are in any way connected to the community colleges and their students.

1 California Community Colleges. n.d. "Management Information System: Data Element Dictionary." <https://webdata.cccco.edu/ded/cb/cb01.pdf>

- Avoids duplication of current local-numbering systems that prohibits clear identification of current and CCN-based courses when listed in parallel.
- Provides a method for implying traditional course level (first year, second year, etc.).
- Provides a method for identification of speciality course types (e.g., Honors, Lab).
- Provides enough scalability to incorporate the volume of current and future courses.
- Accommodates local courses not in the CCN system with the expectation that all California Community Colleges institutions holistically adopt the CCN system.

DRAFT: A PROPOSED TAXONOMY

Changing the taxonomy of a course numbering system, especially one that currently varies across the system's institutions, has a significant impact on students, current technologies and processes, and staff workload. A change in the taxonomy should be analyzed from every aspect of impact and strive to minimize the disruption of the current structure while achieving the intended outcomes. The proposed taxonomy below is the result of significant discussion around the impacts described above. It is provided as a starting point for further discussion and consideration. The CCN Task Force urges future work to include a comprehensive look at the intended outcomes and the resulting impact of any taxonomy proposed, including engaging with student focus groups for direct input.

Subject

Based on 4-letter abbreviations.
A system-level list of abbreviations should be standard.

Course Type Identifier

A system level key could be developed to define other identifiers or establish local use parameters.
C = Common Course Number

SUBJ C####&&&

Course Number (####)

0XXX - Non-baccalaureate
1XXX - 100-level course
2XXX - 200-level course
3XXX - 300-level course
4XXX - 400 level course
9XXX - Non-credit
Provides for 1000 courses at each level per discipline per identifier type.
Other levels could be defined at the system-level as needs are identified.

Course Speciality Identifier (&&&)

A system-level key could define options:
(examples)
H = Honors Course
L = Lab only Course
O = Combined Lecture/Lab Course
R = Co-Requisite only Course
D = Co-Requisite and Credit Course
Combined
Up to 3 speciality identifiers can be attached to a course, a course with no identifiers would not have fillers in those fields.

Example

MATH C1801HL	
SUBJECT	MATH = Math
COURSE TYPE	C = CCN
COURSE NUMBER	1801 = 100-level course
SPECIAL CLASSIFICATIONS	H = Honors L = Lab only course

FURTHER COLLABORATION

Further collaboration amongst California Community Colleges leadership and implementation teams is needed in the areas such as:

- The above taxonomy serves as a discussion starter for developing a final plan. Different stakeholder groups offering diverse perspectives should be invited to give input on the system in order to best serve all impacted.
- Currently, the CB01 field that houses course numbering data allows for 12 digits. As part of the process in developing the final taxonomy, the CB01 field needs to be reevaluated to accommodate any changes needed, such as perhaps changing to a four-digit subject. As part of this evaluation, the impact of the change on all systems (Banner, Peoplesoft, etc.) needs to be considered.
 - Note from technology recommendations: Retain CB01 as the field for subject course and number while creating CB2x to flag the course with a CCN designation.
- Determine if all California community college courses will be housed under the CCN Taxonomy system and, if so, what policies, business processes, approval processes, etc., are necessary to implement one course numbering taxonomy for all courses in the system. All California community college technologies (and technologies at intersegmental institutions) that will house the common course number are able to facilitate the change and/or have resources to adapt the appropriate fields. Examples of systems include local or systemwide curriculum management systems (CMS, COCI), learning management systems (LMS), student information systems (SIS), Schedulers, ASSIST, C-ID, etc.
- Address the differences in course identification for colleges on the quarter system (three colleges) versus the semester system and develop strategies for these institutions to align with the taxonomy and building of courses.
- Based on the proposed taxonomy, determine if the lead identifying letter will have a system-level directory for identifying courses and trailing letters will have a system-level key to be used for all courses.

- Based on the proposed taxonomy, determine how course repeats, corequisite courses, courses with duplicate credit/non-credit and cross-listing of courses will be managed electronically and will impact policy and/or student transcripts.

F.1.g Implementation Recommendation - Common Course Descriptor Development

CCN Descriptor Development and Implementation Process

The creation, vetting and implementation of a new system as complex as the proposed CCN system takes the commitment and determination of all stakeholders impacted by such a system. The CCN system impacts many current intersegmental practices around areas such as course articulation, advising, course content, technology databases, and communication with students. The CCN system, though impacting the community college course structure and offerings, also directly impacts the daily work of the UC and CSU systems and the individual independent colleges and universities within AICCU.

While the timeline stresses the early and regular engagement of all intersegmental stakeholders, the success of this work depends specifically on the establishment of intersegmental collaboration that has the authority and representation to change processes and practices impacting the transferability and applicability of transfer courses.

The three major action items for the intersegmental collaboration identified here should be priority action items that are initial first steps of the CCN Council and occur in tandem with the initial course cohorts recommended below so that all stakeholders can have feedback and evidence about the changes proposed. The three action items are:

1. Develop an agreement and process through which CSU and UC systems and/or their individual member campuses and individual AICCU member institutions accept CCN Descriptors for course-to-course and general education articulation with the California Community Colleges. This process would allow the systems and individual campuses of CSU, UC and AICCU to articulate one CCN-aligned course from the community college system versus having to articulate with the 116 community colleges individually. The two major goals of such an agreement are:
 - i. Goal 1: Articulation is completed at the CCN Descriptor level; and
 - ii. Goal 2: Initial work starts with individual campuses of UC, CSU and AICCU member institutions, but the goal over time is to maximize system-to-system articulation for courses to transfer consistently across all of the UC and CSU campuses and AICCU members. System-to-system articulation is the optimal transfer paradigm.
2. Develop processes and standards for verification that a course meets required CCN elements, as defined by the CCN Descriptor developed through intersegmental collaboration.

3. Develop processes for creating and reviewing CCN Descriptors by engaging receiving institution faculty early in the process. Evaluate and adjust processes simultaneously from proof of concept to successful implementation.

The success of intersegmental work in developing and implementing a CCN Descriptor based system includes:

- Intersegmental development: A CCN Descriptor is created, vetted, and articulated by participating faculty (e.g., from the California Community Colleges, UC, CSU and AICCU).
- Intersegmental agreement: All participating segments/institutions agree that community colleges can pull the template for the CCN Descriptor and submit a course outline of record (COR) against the CCN Descriptor for designation of a common course number.
- Articulation: A college applies for a common course numbering designator that results in seamless transferability and portability of the course based on the CCN Descriptor articulation.

The major processes included in the CCN Descriptor Development and Implementation Processes are:

- Establishment of Intersegmental Collaboration;
- CCN Descriptor Preparation and Development;
- Descriptor Vetting, Cal-GETC, and Articulation;
- Publishing of CCN Descriptors;
- CCC Local Curriculum Processing and Chancellor's Office Call for Submission;
- Local CCN Course Implementation and Program Alignment;
- Course Articulation Verification and ADT Revision Submission; and
- CCN Course Student-Facing.

CONDITIONS FOR SUCCESS

The CCN Task Force recognizes the importance of the following for the successful implementation of the CCN system.

- Intersegmental collaboration and collective decision-making are essential to this work.
- Current practices result in a natural clustering of courses based on certain commonalities:

- Course Identification Numbering System (C-ID): Courses with the same C-ID identifier have been submitted by individual colleges and approved as aligned with the C-ID descriptor for a specific course within a discipline;
- Cal-GETC: Courses are designated to satisfy specific areas of general education;
- ASSIST.org: Courses with similar transferability to university partners can be identified;
- CSU and UC: California community college courses are identified as meeting the transfer level general education patterns.
- Associate Degree for Transfer (ADT): A set of courses are designated as meeting major requirements; and
- Sequencing: California community college courses can be identified as a sequence of courses based on content. (example: Calculus I, II, and III).
- The ASSIST and C-ID systems contain significant course-level and articulation information among the California Community Colleges and 4-year institutions.
- The convening of faculty requires available leadership to facilitate the development process for each subject area.
- Resources/funding are available for intersegmental faculty convening and maintenance of course review, including support for budget requests from four-year institutions to the legislature.
- Successful intersegmental collaboration can significantly reduce the volume of course reviews by the receiving institutions.
- When developing CCN Descriptors, the content necessary to meet General Education requirements and major preparation curriculum requirements may differ. Both should be reflected in the CCN Descriptor if a course based on the CCN Descriptors is to be approved for both.

GUIDING PRINCIPLES

- Revisions to curriculum must be faculty-driven and student-focused across all segments.
- Each approving entity works to streamline, batch approve, apply current approvals, etc.
- Each process works to minimize its time to completion.
- Intersegmental collaboration is essential to modify requirements for courses based on CCN descriptors and must respect and support faculty engagement throughout the development process.

- Processes, agreements, and descriptors are developed in consideration of relevant major preparation requirements and general education areas.
- Institutions of higher learning in California honor the legacy articulations as noted in ASSIST to protect students who completed courses prior to the CCN system – especially when prior articulation differs from the CCN system. The CCN implementation is a moving-forward implementation.

PHASES OF COURSE CLUSTERS: DEVELOPING CCN DESCRIPTORS

While one goal of this work is to expedite the courses transitioning to the CCN system, a primary goal is to assure quality of courses developed through high stakeholder engagement. To this end, three progressive phases are defined below - each one informing and improving the outcomes of the next. The first two phases serve as the proof of concept providing opportunities to implement, evaluate, and refine the processes and templates for application to the large scope of courses in Phase III.

Faculty engaged in Phases I and II will work in collaboration with intersegmental leadership teams to inform the creation of a set of collaborative processes that will then be applied to all other transfer courses in Phase III. The ASCCC can also provide feedback related to course selection about courses that have faculty work groups primed and eager to engage in this work.

- Phase I: Phase I should engage with an initial set of high-enrollment courses to develop CCN Descriptors (completed in 2024) leading to an initial set of CCN-aligned courses being ready for fall 2025. This cohort of courses will inform needed processes, templates, professional development, etc. for Phases II and III. The CCN Task Force recommends the selection of courses based on high-enrollment data and alignment with Cal-GETC.
- Phase II: This cohort of courses will serve the role of evaluating and refining the development processes and templates, testing technology-based implementation, test-driving convening practices and validating intersegmental collaboration. See below for recommendations for selecting this cohort of courses.
- Phase III: Along with the technology solutions, roll out the remaining transfer courses.

The CCN Task Force offers the following set of considerations to guide the creation of the course cohorts for Phase I and II. Course cohorts should:

- Prioritize addressing high-enrollment courses first, to ensure high-impact for students.
- Continue to represent a minimum of one subject from each of the General Education Areas (Cal-GETC).
- Include at least one course or sequence that directly impacts and engages institutions on the quarter system.
- Satisfy both General Education and Major Preparation, to ensure that the proof of

concept contends with implications for both.

- Include courses that naturally sequence together within a subject.
- Be based on impact data (i.e., which courses will impact the greatest number of students).
- Leverage the ASSIST program to help identify local variations that all articulate the same way.
- Leverage C-ID descriptors to serve as a foundation and help to identify what is missing in the CCN Descriptors based on intersegmental discussions.
- Align with and be informed by the Data Reconciliation and Analysis work.

See Appendix III Transferable GE Course Enrollments for initial course-level data.

F.2 CCN Technology and Processes Work Group

Similar to the complexity mentioned above in the development of CCN content, the complexities of the technology and processes necessary to support a CCN system are vast and technical. Technology solutions are needed to support the development work as well as the actual day-to-day processes of implementation. The Work Group described below will be instrumental in informing the work at the campus and system levels.

F.2.a Charge and Membership

The recommended charge of the CCN Technology and Processes Work Group is:

The CCN Technology and Processes Work Group guides and supports the design and implementation of the technology and related processes and supports needed for CCN technology implementation. This group advises and monitors vendor work to ensure: the scope of work is high-quality; supports are delivered to all institutions; changes do not negatively impact current student processes; and contracts are supported. Additionally, this group collaborates with campus, district, and regional stakeholders to support efforts in CCN integration.

Membership in the CCN Technology and Processes Work Group should include stakeholders who are implicated in the effort to design and implement technology system requirements for supporting the CCN implementation, such as Chancellor's Office Equitable Student Learning, Experience and Impact Office (ESLEI), Data and Research, and IT Leads; ASSIST Director and staff; Course Identification Numbering System (C-ID) Specialist; California Community Colleges technical staff (representatives from a variety of institutional sizes, demographics, etc.); articulation officers; and vendor representatives as appropriate. Curriculum chairs and curriculum specialists would also provide valuable perspectives and support of this work.

F.2.b Guiding Principles for the CCN Technology and Processes Work Group

The CCN Task Force calls upon those implementing the activities called for in this implementation plan to embrace the following guiding principles:

- Strive for digital equity in any technology and implementation approach.
 - Digital equity exists when the technology infrastructure, tools, and resources across all campuses provide a high-quality, secure, and seamless online experience for students, faculty, and staff regardless of campus size or location.
- Center the high-level outcomes as articulated by the CCN Task Force.
- When implementing new technology systems, minimize additional costs and streamline existing systems.
- When selecting a CMS or any vendor solution to manage CCN or curriculum data elements, strive to select a system where college/district/state processes drive the software instead of the software driving the processes.

F.2.c Implementation Recommendations - Data Reconciliation

The implementation of technology solutions for a CCN system falls into two different categories: Data Reconciliation and New Technologies. This section outlines the necessary considerations for reconciling the current course level data across curriculum management systems, student information systems and others, such as ASSIST and C-ID, so that all systems contain the exact same information for any particular course. By reconciling the course data, the content of courses can be analyzed to identify current commonalities.

Conditions for Success

The CCN Task Force recognizes the importance of the following (related to data reconciliation) for the successful implementation of the CCN system:

- The CCN work and data reconciliation work can be completed in parallel. The data reconciliation work will not stall or slow the CCN processes and timelines. Work may continue, for example, on convening faculty groups for a cluster of courses (e.g., courses designated to satisfy specific areas of general education for Cal-GETC or courses already aligned with the same C-ID identifier).
- The data reconciliation work will not impact the current articulation of courses prior to CCN being implemented for that course.
- The data reconciliation work will focus on currently active courses and not those that are expired.
- The end result of data clean-up is the addition of a unique identifier and the consistency in the four data fields housing Course Title, Course/Subject Number, Course/Subject Name and Units.

- There is a shared understanding that any changes to these four fields are corrections, and changing these values only for the purpose of consistency does not change the status of any course in any application.
- ASSIST commits to processing corrections to the four shared fields as a batch/migration without further effort required by the colleges.
- COCI and C-ID should coordinate with ASSIST to align the timing for processing the corrections.
- Resources and funding are available to support the following implementation strategies:
 - Data vendor for reconciliation and analysis of course content;
 - Funding for improving the interface and connecting COCI and C-ID;
 - Application Programming Interface (API) programmers for system and local work;
 - Data vendor/programmers to develop system-level repositories;
 - Adaptations in ASSIST; and
 - Training support for new repositories and systems.

Data Reconciliation, Clean-up, and Analysis

Securing a data vendor for a one-time, centralized reconciliation effort has both immediate and long-term benefits for students, faculty and staff. Data reconciliation results in the responses for each of the four shared elements (Course Title, Course/Subject Number, Course/Subject Name and Units) being reported the same in every “primary source” application and allows the courses to be linked at the database level.

Impact of Data Reconciliation and Clean-Up

- CCN elements live in multiple “primary source” applications. This means that the data fields in COCI needed for CCN Descriptor work cannot be collected to pair with the C-ID fields. In order to create a CCN system, a unique identifier is necessary (like the course control number, which is used for management information systems (MIS) reporting) across all three systems (ASSIST, COCI, C-ID).
- Analyzing data at the college level provides institutions with information about how course elements align to the CCN norm. This will reduce workloads when implementation begins.

Data Structure within the Current “Primary Source” Applications

The required common CCN Descriptor elements* indicated below are housed across multiple systems or are locked data in PDF format. In order to complete the development of the CCN Descriptors and create an electronic template based on the CCN Descriptors

to build CORs, these elements must be consistent across the technological systems and be accessible collectively in structured data format. Additional data elements currently housed across the three systems (ASSIST, COCI, C-ID) may play an important role in implementation work.

Shared Elements	ASSIST	COCI	C-ID
College	X	X	X
*Course Title	X	X	X
*Subject Name (CB01A)	X	X	X
*Subject Number (CB01B)	X	X	X
*Min Units (CB07)	X	X	X
Max Units (CB06)	X	X	X

Shared Elements	ASSIST	COCI	C-ID
ETS Code	X		
Unit Type	X		
Start Term	X		
End Term	X		
IGETC Area	X		
CSU-GE -Code	X		
TOP Code (CB03)		X	
Credit Status (CB04)		X	
Transfer Status (CB05)		X	
Course General Education Status (CB25)		X	
Control Number (CB00)		X	
*Course Description		X	
C-ID Number			X
C-ID Descriptor			X
COR Effective Term			X
*Course Prerequisites			X
*Course Content - Topics	Locked Data in C-ID and COCI COR		
*Student Learning Objectives/Outcomes	Locked Data in C-ID and COCI COR		

* Required common CCN Descriptor elements

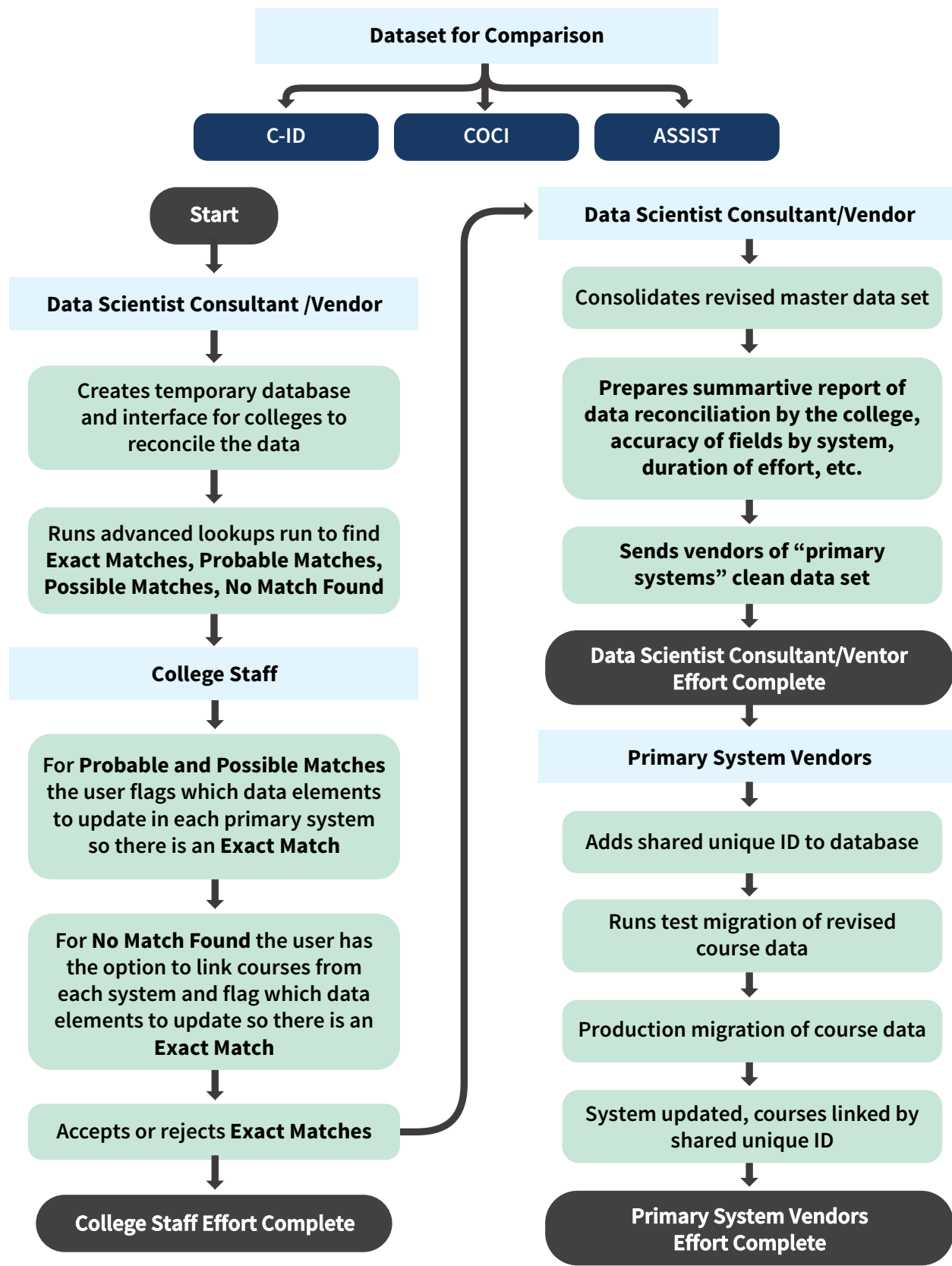
SYSTEMIC CHALLENGES

The data reconciliation process is challenging in that there are many inconsistent practices across the community colleges and the current data structures do not necessarily provide systemic solutions. These challenges include:

- There was no standardization of college name between the available reports;
- There was no unique ID for each course to automate matches between the reports;
- Headings were different within the reports for common data elements (e.g., Dept Name, Subject Name, Subject Number - CB01A);
- IGETC and CSU GE mappings are one subject area per row;
- SubjectName (CB01A) values varied widely within and between the colleges; and
- SubjectNumber (CB01B) contained the largest variance between the three datasets.

DATA RECONCILIATION AND ANALYSIS: POTENTIAL DELIVERABLES

The following chart and information below provide deliverables that will result based on the system and local level efforts to align data across the different technologies (COCI, C-ID, ASSIST, local solutions).



DATA RECONCILIATION

Potential deliverables include:

- Provide a documented plan that describes the changes identified as they relate to articulation agreements that are posted in ASSIST.
- Create a temporary database (repository) for colleges to reconcile and consolidate the data into a master data set.
- Run advanced lookups to find Exact Matches, Probable Matches, Possible Matches, and No Matches Found. Document and categorize these for sorting.
- Provide an organized file to institutions that identify/provide the correct version of information.
- Prepare a summative report of data reconciliation by college, accuracy of fields by system, duration of effort, etc.
- Send vendors of “primary systems” clean data sets that include Course Control Number as the shared unique ID; test migration; run migration in production.
- Result: systems updated; data standardization and courses linked by the Course Control Number.

ANALYSIS

- Document how to access all of the data identified by the CCN Task Force as needed for the minimum set of elements to be included in Course Outlines of Record.
- Provide summative data of commonalities identified in courses, grouped by descriptor elements. This information will be used to help inform the work of the work groups to define standardization of CCN elements and prioritize work.

STARTING CCN DESCRIPTOR WORK PRIOR TO DATA RECONCILIATION AND CLEAN-UP

While the need for data reconciliation was evident, the CCN Task Force stressed the need to begin the work on developing CCN Descriptors without any delay from the reconciliation work. Running the two processes in parallel can result in each process informing and improving the other. A set of courses (Phases I and II) functioning as a proof of concept will allow a space for building the CCN Descriptors, testing templates and data support, and ironing out any needed processes. Some data reconciliation and clean up work can occur in parallel with the proof of concept. As the work group identifies the small subset of courses with more consistent language, they will be able to do so without data reconciliation. Aligning courses without common nomenclature will benefit from a data summary. This will avoid potential biases from the work group, who may not be aware of what nomenclature or CCN elements are already common across the system.

F.2.d Implementation Recommendations - New Technology

The implementation of technology solutions for a CCN system falls into two different categories: Data Reconciliation and New Technologies. This section outlines the necessary considerations for developing new technologies to support managing the CCN courses and supporting the processes critical to implementing this system in a streamlined and efficient fashion.

Conditions for Success

The CCN Task Force recognizes the importance of the following (related to new technology) for the successful implementation of the CCN system.

- There is desire amongst the segments to apply technology as a solution for streamlining and storing the CCN work.
- Without a repository for which to identify all CCN elements, colleges may not succeed in having all courses matching each other.
- A common repository would help to align the CCN elements, including those requiring identical or equivalent elements, across the system for existing and for newly developed courses.
- It is important to reconcile all technological solutions being used across a variety of efforts (e.g., AB 928, Cal-GETC, and AB 1111) to assure that changes made for one scope of work still accommodate requirements of other scopes.
- COCI and C-ID have existing system-level repositories for curriculum approvals and articulation.
 - Combining these into a single, comprehensive repository with modules to support varying workflows not only reduces the data entry burden for colleges but it also could be expanded to provide workflows for submission and approvals associated with CCN designation.
 - COCI is already integrated with MIS.
- California Virtual Campus - Online Exchange Interface (CVC-OEI) needs to be aligned with AB 1111. A statement of work should be developed to make this effort inclusive. This will require working with stakeholders to ensure both systems function correctly with each other.

ENGL1A - English Composition

C-ID: ENGL100ENGL1A

Course Description

Students will learn the skills necessary for writing college level compositions. Students learn expository writing, critical reading, and research techniques. Students will also learn to write academic essays including a documented research paper in conventional format using MLA style. English 001A is the first transfer level English course. Prerequisite: Continuing students must complete ENGL 092 and READ 101 or ESL 091; all with C or better. New students will be placed based on the results of assessment. Continuing students must complete ENGL 092 and READ 101 or ESL 091; all with C or better. New students will be placed based on the results of assessment.

Prerequisites:

This course has a prerequisite

Transfer Information

ENGL1A - English Composition from San Jose City College.

- Counts For CSU GE A2 - Written Communication At De Anza College
- Counts For IGETC 1A - English Composition At De Anza College

This course may count toward your program of study based on assist.org data and C-ID, which identifies lower-division transfer courses commonly articulated between California Community Colleges and four-year universities. Prior to enrollment, please meet with a counselor or academic advisor to determine which of these courses satisfy your program requirements.

- The CVC is already pulling some data from ASSIST.org. This work should continue with any CCN database.
- The ASSIST mapping is displayed to the student when they are reviewing the course details page. (Example provided.)

STREAMLINING DATA MANAGEMENT - CCN DATA WAREHOUSE

The efficiency and success of the CCN work depends on the ability to streamline processes and/or technological solutions. Merging of the COCI and C-ID data repositories into a single system-level curriculum and articulation application results in a module-based platform with specialist permissions, access walls, and respect for Chancellor’s Office curriculum review, faculty review in C-ID, and local curriculum approval and data processes. This requires working with existing stakeholders to ensure necessary functions are not lost in the merger.

The current system requires triplicate data-entry (COCI, ASSIST and C-ID) resulting in a substantial amount of human and fiscal resources to enter curriculum updates/additions/deletions. In addition, colleges/districts typically will need to enter curriculum information in their Curriculum Management Systems (CMS) in addition to similar data entry in their SIS.

By creating an interface and/or common statewide system level repository, we can ensure consistent data entry, facilitate the curriculum development process, and ease the transition to a common course numbering system.

A single system-level application results in:

- Single and consistent data-entry for each of the CCN descriptors.
- Established dedicated space for work streams/permissions through which the current processes are completed and maintained by statewide curriculum and articulation personnel.
- A significant increase in course data available for research that is currently fragmented.
- Development of API and support for local systems to resolve databases currently requiring manual entry.

Successful integration of a single system-level data repository requires:

- An agreement with a single software company to develop the repository.
- Systemic influences and sponsorship of local CMS/SIS vendors to complete required work to ensure all colleges have equitable access and opportunity to participate.
- Paying for consultants to develop local APIs from this curriculum software to their SIS and providing training to promote sustainability on each campus.
- An aggressive timeline for application development, testing and implementation of repository.

- An equally aggressive timeline for implementing an API direct connect at the local level in all California community colleges.
- Learning from prior system-level implementations such as the California Community Colleges' adoption of Canvas as the single Learning Management System.

Future considerations:

- Colleges/districts opting out of the new system would be required to manually enter their curriculum using the repository. This creates a need to develop a way for them to submit their curriculum through the repository for modifications to existing curriculum or new classes.
- The implementation of the single LMS, Canvas, included financial incentives for colleges opting into its implementation. A similar opportunity needs to exist in CCN.

STREAMLINING DATA MANAGEMENT - LINKING REPOSITORY TO LOCAL CURRICULUM SOFTWARE

This work depends on:

- Securing programmers to write customized APIs to connect the system repository to local curriculum software (CMS, SIS).
- Providing staff support and financial support to institutional level technology staff to complete the work while respecting local processes and reducing the volume of data entry.
- Providing intersegmental solutions through collaboration with ASSIST to develop an API to solve manual entry by pulling and pushing data from the repository into the ASSIST system, respecting the UC and CSU perspectives and roles in the ASSIST program.

When considering the options for automating the repository into local SIS systems, it is important to recognize the variability of software packages in use and/or available. There are multiple curriculum software programs (e.g., eLumen, CourseLeaf, CourseDog, CurricUNET, etc); and multiple SIS systems (e.g., Banner, PeopleSoft, Colleague). Each curriculum software will house local courses, in addition to the courses impacted by AB 1111, which means a statewide system may encounter issues not identifiable at this time. Once there is communication between the curriculum software and the SIS, it must also feed into the CMS. Most colleges are now on Canvas, which will help that process.

INTEGRATED SYSTEM-LEVEL APPLICATION WITH API CONNECTIONS TO LOCAL SYSTEM

When linking a system level repository to the individual local systems through an API connection, there are several college- and system-level considerations:

College Level Considerations

- Manual data entry significantly reduced.
- Complete alignment of data in local applications and system-level repositories.
- College staff would continue to control their data in the repository by initiating data transfer through lookup tools or similar processes.

System-level Considerations

- Leverage the Chancellor’s Office and ASCCC to work directly with CMS vendors to drive schedule and scope of API.
- Testing and implementation is coordinated at the vendor level.
- Need to determine how much customization exists to local off the shelf systems and align resources to support college specific APIs.
- Colleges using homegrown systems may need an alternate connection option and/or additional resources to implement.

Successful integration of APIs requires dedicated resources.

- This is the least expensive and time effective method.
- It would likely take an average of 40 IT hours to write an API to an existing curriculum software. For colleges without an API from their curriculum software to their SIS, this would also likely be written.
- Timeline: One year for colleges with existing Curriculum-to-SIS APIs, and three years for colleges requiring additional technology.

STREAMLINING DATA MANAGEMENT - CCN DESCRIPTORS - VERIFYING IDENTICAL VS EQUIVALENT FOR ARTICULATION

The CCN Descriptors, having been vetted with intersegmental faculty from California community colleges, CSUs, UCs and members of AICCU, will contain elements that are required to be identical for any courses aligned to a particular CCN Descriptor. The implementation of technology solutions can verify courses that are identical to CCN Descriptors and which courses need “human” or manual review as part of the approval process at the community college and UC/CSU/AICCU-campus levels.

Developing a technology solution for submitting a COR using a CCN Descriptor template based on structured data will result in:

- The accessibility of the course data that is currently locked in PDF/text fields.
- The development of a technology-assisted review process that will create greater efficiency of process and better use of faculty reviewers' time.
- An opportunity to intersegmentally certify courses as identical to the CCN Descriptors and to flag courses needing manual review.
- An opportunity to streamline processes and provide automated approvals and notifications.

Developing a Technology Solution for COR Development

Building a technology solution to support the creation and approval of the institutional CORs can create an efficient way to align CORs with the CCN Descriptors, complete an initial comparison, and free-up faculty to do in depth review when content warrants it. This technology solution has two major components. Those two components, along with additional valuable context, are listed here:

- Building local CORs through the use of structured CCN Descriptor templates
 - College teams create courses by selecting appropriate CCN Descriptor templates or building content for local courses.
 - Each CCN Descriptor element is housed in an individual field and set for submission against the minimum requirement for that descriptor (structured data). Additional fields are added for optional or variable content.
 - The COR is electronically submitted after appropriate local approvals to appropriate system sectors for chaptering/accepting (COCI, C-ID, ASSIST, etc.).
- Building an automated certification system
 - The CCN Descriptor Template System checks for level of variance between COR and CCN Descriptors and flags COR for manual review if the course exceeds the established threshold. If the COR meets established parameters, the course is certified and chaptered.
 - The data repository would house all the elements in designated fields providing opportunities for increased integration of data.
 - The data repository will provide public-facing access to CORs.

F.2.d Implementation Recommendations - Structural Considerations for CCN Taxonomy

The change in the parameters and use of any data field requires careful scrutiny related to its impact on historical data as well as the capabilities for current systems to handle the

changes. From the technical perspective, the development of a taxonomy system should take into consideration items such as:

- Currently, the CB01 field that houses course numbering data allows for 12 digits. To support the work of the CCN Taxonomy, the CB01 field needs to be reevaluated to accommodate any changes needed, such as a four-digit subject. As part of this evaluation, the impact of the change on all systems (Banner, Peoplesoft, etc.) needs to be considered.
- Accommodate the use of abbreviations, numbers and characters including spaces, dashes, etc.
- Retain CB01 as the field for subject course and number while creating CB2x to flag the course with a CCN designation.
- Locally handle showing of the different course numbers (CCN, C-ID Descriptor, and Old Local Number) in catalog, etc.
- Engage early with big SIS vendors and built-in MIS reporting support to update with changes.
- Aim for a result of easier access to MIS data from the research perspective.
- Recognize that altering the course numbering structure impacts not only technical systems but also program updates when CCN courses are adopted and COCI program update processes. The impact on workload will also be a key factor in successful transition.

G. CCN COMMUNICATION BODY OF WORK

The CCN Task Force recognizes the need for significant operational support on communications. The Task Force agreed that communications to support CCN implementation will need to include:

- A web site that provides timely, consistent, accurate, and accessible information on CCN implementation to a variety of audiences, including students, faculty, legislators, college leaders, etc.
- An effort to ensure that colleges receive clear and consistent information, shared with one voice. This would include guidance for colleges designed to ensure student-facing information (e.g., web sites) is accurate, easily navigable, and consistent.
- Guidance for faculty to ensure they understand the processes for creating CCN Descriptors, developing Course Outlines of Record, etc.
- Early and regular coordination with the ASSIST program.
- Regular updates to a variety of constituents (e.g., students, faculty, staff, legislators, trustees and others) about the progress and timelines for CCN implementation.

- Opportunities for public feedback.
- A cross-listing of the CCN website on all other websites that might use it (e.g., ASSIST.org).

Based on the need for consistent, transparent, timely, and clear communication, the CCN Task Force recommends the communication work fall within the operational structure of the Chancellor’s Office team, with consultation and advisement from appropriate members of the CCN Council, its Steering Committee, its work groups, and other stakeholders as needed depending on subject-matter, and consistent with processes outlined in the Board of Governors of the California Community Colleges’ Standing Orders.

The members of the CCN Council and its work groups should provide support to the communications efforts by applying their understanding of the details of CCN implementation while reviewing systemwide and intersegmental communications with an eye toward clarity and consistency. Stakeholders should be consulted based on their area of expertise and their ability to contribute to the identification of need, design, and implementation of strong communications in support of an effective CCN implementation.

G.1 Guiding Principles for the Communications Work

The CCN Task Force recommends that the communications activities called for in this recommended implementation plan are grounded in the following guiding principles:

- Honor the CCN Task Force’s intention that the new CCN system will be presented consistently by each college as a single, transparent source of course information, and will be accessible within the resources students are most likely to use (i.e., in the catalog and schedule of classes).
- Seek to anticipate challenges and alleviate any stress of a new system implementation by communicating clearly and proactively.
- Center the student experience in all student-intended CCN communications, ensuring that the transition to the new CCN system is smooth and students have clarity on how to use the new system.
- Ensure that communications support students who took courses before, during, and after the implementation of the new CCN system.
- Consider the implications of the new CCN system broadly, taking into account the CCN Task Force’s intention that the CCN system will improve course articulation both within the California Community Colleges and across four-year transfer partners.

G.2 Implementation Recommendations - Statewide Communications Work Plan

Initial communication work by the Chancellor’s Office, in collaboration with the ASCCC, CIOs and CSSOs, should aim to outline a statewide communications plan, recognizing it is an iterative plan aligning with the work of the CCN Council. This communications plan should be

phased and attend to at least the following:

- Provide guidance to colleges about how to prepare for the coming changes, when they will occur, and how stakeholders can collaborate to streamline efforts and maximize a smooth transition for all stakeholders, particularly students.
- Communicate to colleges the expectation that the new CCN system, developed collaboratively, with broad stakeholder input and vetting, will be presented consistently by each college as a single, transparent source of course information, and will be accessible within the resources students are most likely to use (i.e., in the catalog and schedule of classes).
- Provide guidance to students about the timeline and plan for the coming CCN system;
- Ensure students experience the CCN implementation as a smooth migration that is accurate and supportive of their success.
- Communicate with tech vendors, including ASSIST leadership, about the changes coming and what they might mean for technology systems in all segments.
- Support the CCN Council and working groups on communication-related activities.
- Lead purposeful dissemination of information and gathering of feedback.
- Communicate with vendors (PeopleSoft, Ellucian, local CMS vendors (Elumen, Governet, others)) about the work underway and to gather needed information.
- Share the survey results related to the Enterprise Resource Planning (ERP) and CMS solutions to deepen their understanding of systems in place at the California Community Colleges institutions.
- Initiate an awareness campaign with Academic Senates and other stakeholders.
 - Collaborate on how processes could be approved for one time processes, batches, etc.
 - Collaborate on how technology processes can improve the workflow of course reviews and approval for the long term.

IV. CCN IMPLEMENTATION TIMELINE

Assembly Bill 1111 was signed into law in October 2021 and established Education Code 66725.5, which requires implementation of a student-facing common course numbering (CCN) system (including adoption into college course catalogs) for all general education requirement and transfer pathways courses across California community colleges, on or before July 1, 2024. The stated intent of the legislation is to streamline transfer from community colleges to four-year postsecondary educational institutions and reduce excess unit accumulation. Since the establishment of the law, the Chancellor's Office has worked

with consultants and critical stakeholder groups to identify CCN promising-practices, assess implementation needs and develop implementation plans, through conducting a national and statewide CCN landscape scan and convening a statewide CCN Task Force. Research and progress of the CCN Task Force revealed that CCN implementation with integrity requires more than engaging 116 California community colleges in renumbering over 40,000 courses, but also demands a student-centered approach that eliminates confusion and outcome variations regarding how renumbered courses will count within California community colleges and across CSU, UC and AICCU segments. Thus, the CCN Task Force engaged in finalizing recommendations for a comprehensive CCN system implementation plan, as detailed in this Summary Report. The Recommended Implementation Plan is inclusive of: establishing what course elements must be identical and/or equivalent for a course to be numbered the same; developing a statewide intersegmental CCN Council, including a steering and operational structure for ongoing CCN course development, assessment, and alignment processes (considerate of local curriculum and catalog processes); determining technology solutions that will increase data-informed decisions and expedite operational processes; and identifying and addressing where CCN changes to California community colleges courses will potentially disrupt existing course articulation/transferability with the CSU and UC systems and AICCU institutions.

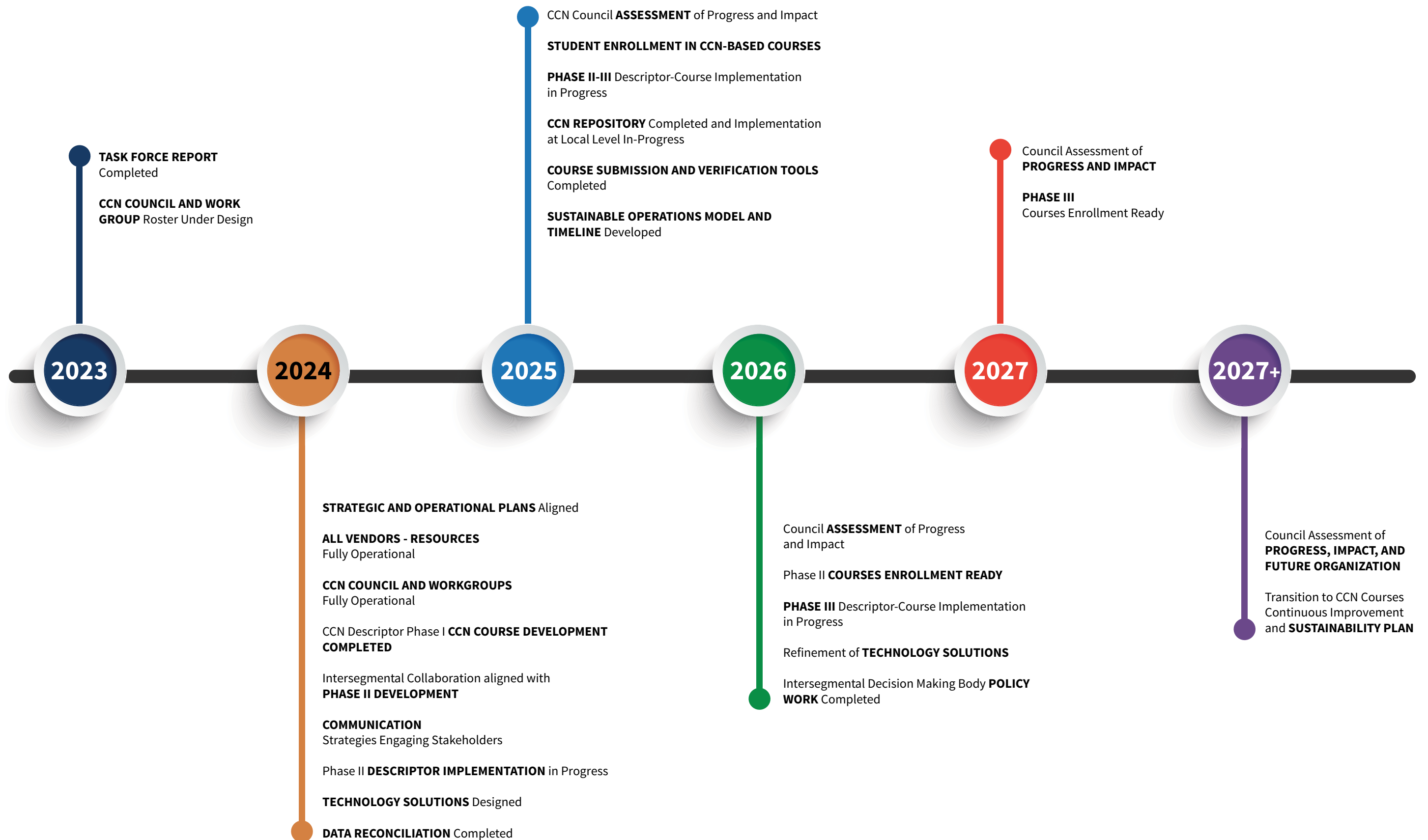
Recognizing the need to demonstrate its commitment to this work, the CCN Council should strive to have Phase I courses utilizing common course numbering completed for fall 2025. This cohort will inform the necessary processes that need to be developed.

The CCN Task Force design of the CCN system recommended implementation plan illustrates the complexity and scale of this endeavor that necessitates additional time beyond July 2024 to complete the work intended by the legislation. It was therefore proposed that the CCN system implementation deadline be extended to fall 2027, with a comprehensive rolling implementation towards full scale beginning in January 2024.

The detailed and aggressive timeline outlined in Appendix I establishes milestones that indicate how the extension would allow for continuous progress to be achieved through applying common course numbers to groups of courses in a scheduled cycle (commencing 2024), while continuing to build toward a sustainable CCN infrastructure with CSU, UC and AICCU (all three currently not mandated to participate), which is necessary to ensure that all existing and future courses going through the CCN process are accepted and approved for transfer across segments.

The timeline overview below outlines immediate implementation outcomes including the set of initial courses as well as long-term work to create a strong and sustainable system (see Appendix I for additional details).

CCN MILESTONES PROPOSED TIMELINE 2023-2027+ (PENDING TIMELINE EXTENSION REQUEST)



V. CONCLUSION

The CCN Task Force is pleased to present this Summary Report, inclusive of a Recommended Implementation Plan. The CCN Task Force represents a highly collaborative group that worked diligently over approximately 16 months and engaged and honored the expertise of faculty, staff, students, administrators, trustees and representatives of the California Community Colleges' four-year transfer partners from AICCU, UC and CSU. The CCN Task Force is confident that the implementation plan described in this Summary Report can and will result in a CCN system that has the potential to greatly benefit students and meet the stated intent of the AB 1111 legislation, which is to streamline transfer from two- to four-year postsecondary educational institutions and reduce excess unit accumulation.

Time is of the essence. California community college students need the clarity CCN will provide, and the work ahead will be challenging, but rewarding. The CCN Task Force looks forward to the implementation effort and encourages all necessary stakeholders to move forward quickly, ensure the funding and resources are available for an implementation of this magnitude, and center the equitable success of our students.

APPENDIX I: DETAILED PROPOSED TIMELINE 2023-2027+ (PENDING TIMELINE EXTENSION REQUEST)

The CCN Task Force supports the goal of this work moving forward quickly to meet these timelines. This timeline represents the Task Force’s best estimates of how this work will proceed; as the work proceeds, some of these details may change.

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	Chancellor’s Office and Operations Team
Fall 2023 (October to December) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Recommend operations role within governance structure Engage senior leadership (to be determined) from all four segments of higher education to support new intersegmental processes and engagement, elevate the work, and secure necessary intersegmental funding for the work inclusive of incentives for faculty participation. 	<ul style="list-style-type: none"> Engage with Chancellor’s Office communications team to confirm operations approach 	<ul style="list-style-type: none"> Develop work group appointments 	<ul style="list-style-type: none"> Develop work group appointments 	<ul style="list-style-type: none"> Complete vendor processes and agreement for operations, development, and technology Finalize CCN Task Force report Establish budget draft for implementation
Spring 2024 (January to March) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Convene first meeting in February Inform Data Collection and Analysis (initial and on-going) Develop draft of an implementation plan and inform development of Chancellor’s Office operational plan Engage intersegmental senior leadership (to be determined) in the development of practice and policy as descriptor development phase 1 (proof of concept) informs. 	<ul style="list-style-type: none"> Convene first meeting Inform Chancellor’s Office operational plan Communicate progress and details about the creation of templates and processes Transition and update CCN Task Force slides to CCN Council slides Create robust communication plan that solicits stakeholder groups’ feedback and engages 2-year and 4-year partners Create a robust process for submitting feedback to the CCN work Inform colleges about funding for CCN work (See Appendix II) 	<ul style="list-style-type: none"> Convene first meeting (goal: February) Inform Chancellor’s Office operational plan and develop work group plan including expectations and norms. Inform creation of templates and processes Initiate CCN Descriptor Phase I development which informs needed processes, professional development, etc. Create development plan (phases, timeline, processes, resources, work structure) Identify CCN Phase I courses Recruit and appoint Phase I intersegmental faculty and AO representatives Design training and run through the submission process to inform future work 	<ul style="list-style-type: none"> Convene first meeting expectations and norms Inform Chancellor’s Office operational plan and develop work group plan including expectations and norms Identify milestones for technology solutions and target points for evaluation- adoption- abandoned decisions Inform creation of templates and processes for technology solutions based on emerging descriptor/course development Develop plan for technology solutions (reconciliation, repository, institutional support, submissions) Initiate data reconciliation Share the survey results related to the Enterprise Resource Planning (ERP) and CMS solutions with the CCN Council and other identified stakeholders to deepen their understanding of systems in place at California community colleges 	<ul style="list-style-type: none"> Develop tentative operational plan, aligning with implementation plan Onboard and norm vendors Convene and facilitate Council Steering Convene and facilitate CCN Council Track, convene and/or facilitate work groups Inform decisions and assess progress through data collection and analysis Support templates and processes creation Facilitate creation of a plan for technology solutions (repository, institutional support, submissions) Work with stakeholder representatives for an equitable process for providing funding to colleges to do this work

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	Chancellor's Office and Operations Team
Spring 2024 (April to June) Action plan and timeline may need adjustments as details are further developed	<ul style="list-style-type: none"> Develop and publish three-year implementation plan Engage intersegmental senior leadership (to be determined) to develop practice and policy and practice informed by the development of the CCN Descriptor 	<ul style="list-style-type: none"> Create a checklist that clearly defines student facing implementation communication Update stakeholder groups on CCN processes and progress Initiate an awareness campaign with Academic Senates and other stakeholders <ul style="list-style-type: none"> Include collaboration on how processes could be approved for one time processes, batches, etc. Include collaboration on how technology processes can improve the workflow of course reviews and approval for the long term 	<ul style="list-style-type: none"> Develop and incorporate group training and norming on descriptor development Address inclusion of Cal-GETC (and other changes if/as appropriate) Develop CCN Descriptors for Phase I Courses Modify plan as determined by Phase I and intersegmental decision body 	<ul style="list-style-type: none"> Continue data reconciliation and clean-up Complete data repository design Complete plan for institutional on-site support for linking data repository to local curriculum software Complete technology- based course submission and verification design Complete implementation plan for CCN Taxonomy Build timeline for technology solutions and processes Communicate with technology vendors, especially ASSIST leadership, about the changes coming and, how it might impact their technology systems and institutions Communicate with vendors (PeopleSoft, Ellucian, local CMS vendors (Elumen, CurriQunet, others)) about the work underway and to gather needed information 	<ul style="list-style-type: none"> Complete operational plan Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping
Fall 2024 (July to December) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Engage intersegmental senior leadership (to be determined) in the development of practice and policy informed by descriptor development. Complete annual update and progress report 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress Provide guidance to colleges about how to prepare for the coming changes, when they will occur, and how stakeholders can collaborate to streamline efforts and maximize a smooth transition for all stakeholders, particularly students 	<ul style="list-style-type: none"> Continue implementation on Phase I: Descriptor vetting and institutional integration Identify needed processes as determined by Phase 1 and intersegmental decision body Begin Phase 2 processes parallel to processes and template vetting. 	<ul style="list-style-type: none"> Complete data reconciliation and clean-up Initiate implementation of established timeline 	<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Develop assessment plan in coordination with CCN Steering Continue vendor oversight and progress mapping
Spring 2025 (January to June) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Engage intersegmental senior leadership in the development of practice and policy as descriptor development informs. Assess progress and impact 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress Assess the capacity of local communication systems to handle the scope of changes 	<ul style="list-style-type: none"> Continue implementation of Phase I CCN Descriptors published and courses prepared for fall enrollment Modify processes as determined by Phase I-II and intersegmental decision body 	<ul style="list-style-type: none"> Implement technology solutions according to established timeline 	<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	Chancellor's Office and Operations Team
Fall 2025 (July to December) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Continue collaborative work with California Community Colleges, UC, CSU and AICCU systems to enhance current practice to best support students. Develop annual update and progress report 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress 	<ul style="list-style-type: none"> Phase I Student Enrollment Modify processes as determined by Phases I-II and intersegmental decision body Continue implementation of Phases II-III in Process 	<ul style="list-style-type: none"> Implement technology solutions based on established timeline Complete the development of the CCN repository and implement at local level Complete course submission and verification tools 	<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping Create sustainable operations model and timeline in collaboration with CCN
Spring 2026 (January to June) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Assess progress and impact 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress Provide guidance to students about the timeline and plan for the coming CCN system 	<ul style="list-style-type: none"> Modify processes as determined by Phases I-II and intersegmental decision body Continue implementation of Phases II-III 	<ul style="list-style-type: none"> Refine technology solutions 	<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping
Fall 2026 (July to December) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Continue collaborative work with California Community Colleges, UC, CSU and AICCU systems to enhance current practice to best support students Develop annual update and progress report 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress 	<ul style="list-style-type: none"> Complete Phase II: CCN Courses are enrollment ready Continue implementation of Phase III 	<ul style="list-style-type: none"> Refine technology solutions 	<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping
Spring 2027 (January to June) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Assess progress and impact 	<ul style="list-style-type: none"> Update stakeholder groups on CCN processes and progress 	<ul style="list-style-type: none"> Continue implementation of Phase III 		<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping Transition to sustainable model
Fall 2027 (July to December) Action plan and timeline may need adjustments as details are further developed.	<ul style="list-style-type: none"> Continue collaborative work with California Community Colleges, UC, CSU and AICCU systems to enhance current practice to best support students. Develop annual update and progress report 		<ul style="list-style-type: none"> Complete Phase III: enrollment ready Develop process for sustainability of descriptors (review process, cycles, etc.) 		<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	Chancellor's Office and Operations Team
<p>Post-Cohort 1 Cycle 2027+</p> <p>Action plan and timeline may need adjustments as details are further developed.</p>	<ul style="list-style-type: none"> Assess progress and impact Continue collaborative work with California Community Colleges, UC, CSU and AICCU systems to enhance current practice to best support students. Develop annual update and progress report 		<ul style="list-style-type: none"> Transition to sustainability plan and begin discipline review cycles 		<ul style="list-style-type: none"> Continue data collection and analysis to inform decisions and assess progress Continue vendor oversight and progress mapping

APPENDIX II: ALLOCATION OF CCN FUNDING

As a result of the Budget Act of 2021, a \$10 million one-time budget was designated for the Chancellor's Office to establish a work group, known as the CCN Task Force.

In January 2022, \$105 million one-time funds were designated for the CCN implementation in the 2022-2023 budget year in AB 183 (2022): Higher Education Trailer Bill

From AB 183 (2022):

SEC. 56.

(a) For the 2022–23 fiscal year, the sum of one hundred five million dollars (\$105,000,000) is hereby appropriated from the General Fund to the Board of Governors of the California Community Colleges for allocation to community college districts to assist with the adoption of, and transition to, a common course numbering system pursuant to Section 66725.5 of the Education Code.

(b) Funds allocated pursuant to subdivision (a) may be used for, but are not limited to, all of the following purposes:

- (1) Aligning existing course curricula to a common course numbering system.
- (2) Updating course catalogs and other digital course registries.
- (3) Supporting faculty costs associated with course differentiation and curriculum approval.
- (4) Campus communication efforts to inform students of revised course numbers and curricula.

FUNDING GAPS

The following are items not specifically funded by the existing budgetary allotments:

- Ongoing intersegmental funding to compensate faculty and staff from California Community Colleges, UC, CSU and AICCU institutions participating in the CCN work;
- Technology funding to support the build of a technological infrastructure for CCN and to implement that structure across all of the California community colleges;
- Technology funding to ensure that the UC, CSU and AICCU members institutions are also able to change technology systems to accommodate the new common course numbering system;
- Funding to support collaboration with the ASSIST program and C-ID; and
- Sustainability funding for continuous improvement and expansion.

APPENDIX III: TRANSFERABLE GE COURSE ENROLLMENTS FOR INITIAL COURSE-LEVEL DATA.

RESEARCH QUESTION

- What are the most popular CSU/UC transferable General Education (GE) courses based on enrollment?
- Goal: Use the info to focus initial common course numbering (CCN) efforts.
- The research team analyzed course enrollments for Intersegmental General Education Transfer Curriculum (IGETC) and CSU GE Breadth courses over the past 3 years (AY 2020-2021, 2021-2022, 2022-2023).
- We used the Course Identification Numbering System (C-ID) codes to identify similar courses at different colleges.
- Preliminary considerations for merging data sources for CCN

RESULTS OVERVIEW

- Top 20 most popular transferable GE courses (incl. both IGETC and CSU GE Breadth courses) based on enrollment in AY2021-2022 are shown in the figure.
- Results are similar for AY2020-2021 and AY2022- 2023.

DATA SOURCES

- Articulation System Stimulating Interinstitutional Student Transfer (ASSIST): Identify transferable GE courses (IGETC, CSU GE Breadth)
- Area codes for IGETC and/or CSU-GE/Breadth Certification applicability
- Chancellor's Office Management Information System (COMIS): Count course enrollments
- Taxonomy of Programs (TOP) codes
- Chancellor's Office Curriculum Inventory System (COCI): Join the ASSIST and the COMIS data
- ASSIST - College, Dept Name, Dept Number, Min Units, Max Units
- COMIS - Control Number
- C-ID: Identify similar courses at different colleges
- College, Dept Name, Dept Number, C-ID #, Descriptor

ANALYSIS METHODOLOGY

- Created a course identifier for the analysis:
- For courses matched with C-ID, we used C-ID number as the identifier;
- For courses unmatched with C-ID, we treated the course as distinct in the system and used college code + course control number as the identifier.
- Counted course enrollments by college and term, and then added up the counts across terms for an academic year and across colleges for a same course identifier.
- Results also include TOP codes, GE area codes (IGETC codes & CSU-GE-Certification codes), ASSIST data sources (IGETC and/or CSU GE Breadth) for each course identifier.
- A course identifier can be associated with multiple TOP codes, GE area codes, and ASSIST data sources.

RESULTS

Top 20 most popular transferable GE courses by enrollment over the past 3 years

Course Identifier	Descriptor	Enrollment, AY2020-21	Enrollment, AY2021-22	Enrollment, AY2022-23
ENGL 100	College Composition	327902	308795	325876
MATH 110	Introduction to Statistics	220804	187530	186512
COMM 110	Public Speaking	173258	153494	156334
PSY 110	Introductory Psychology	171800	154559	150857
POLS 110	Introduction to American Government and Politics	159632	135381	129994
ENGL 105	Argumentative Writing and Critical Thinking	137205	116000	115322
SOCI 110	Introduction to Sociology	126618	105059	105929
HIST 130	United States History to 1877	117051	95903	89098

Course Identifier	Descriptor	Enrollment, AY2020-21	Enrollment, AY2021-22	Enrollment, AY2022-23
HIST 140	United States History from 1865	95983	79853	77377
ENGL 120	Introduction to Literature	70943	62543	62607
ANTH 110	Introduction to Biological Anthropology	66187	53737	56417
ECON 202	Principles of Macroeconomics	62183	56567	57935
SPAN 100	Elementary Spanish I	59578	49824	50710
ECON 201	Principles of Microeconomics	58324	51554	55439
CHEM 101	Introduction to Chemistry	57950	53544	48740
CDEV 100	Child Growth and Development	56451	49375	50370
BIOL 110 B	Human Anatomy with Lab	55568	50040	45941
COMM 130	Interpersonal Communication	54985	50102	52644
CHEM 120 S	General Chemistry for Science Majors Sequence A	54917	47340	44474

RESULTS

TOP codes & GE area codes for the most popular transferable GE courses

Course Identifier	Descriptor	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
ENGL 100	College Composition	150100, 493084, 493087	1A	A2, A3
MATH 110	Introduction to Statistics	010300, 050100, 050500, 050600, 170100, 179900, 200100, 200300, 209900, 220100, 220200, 220400, 220800	2A, 4	B4, D
COMM 110	Public Speaking	060100, 150600	1C	A1, A3
PSY 110	Introductory Psychology	200100, 220100	4, 4I	D, D1, D4, D7, D9, E
POLS 110	Introduction to American Government and Politics	220100, 220700	4, 4H, 7	D, D1, D2, D3, D8, F
ENGL 105	Argumentative Writing and Critical Thinking	150100, 150900, 152000, 200100, 220800	1B, 3B	A2, A3, C2, E
SOCI 110	Introduction to Sociology	220100, 220800	4, 4C, 4G, 4J, 7	D, D0, D1, D3, D6, D7, E, F
HIST 130	United States History to 1877	220300, 220500	3B, 4, 4C, 4F	C2, D, D3, D4, D6, D8
HIST 140	United States History from 1865	220180, 220300, 220500	3B, 4, 4C, 4F, 7	C2, D, D3, D4, D6, D8, F
ENGL 120	Introduction to Literature	150100, 150200, 150300, 493087	1A, 1B, 3B	A2, A3, C2
ANTH 110	Introduction to Biological Anthropology	220200	4, 4A, 5A, 5B, 5C	B2, B3, D, D1, D5, E
ECON 202	Principles of Macroeconomics	050100, 050500, 220400	4, 4B, 4G	D, D2, D3
SPAN 100	Elementary Spanish I	110100, 110500	6A	C2

Course Identifier	Descriptor	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
ECON 201	Principles of Microeconomics	050100, 050400, 050500, 220400	4, 4B, 4G	D, D2, D3
CHEM 101	Introduction to Chemistry	190500	5A, 5C	B1, B3
CDEV 100	Child Growth and Development	130100, 130500, 130580, 130800, 200100	4, 4G, 4I, 4J	D, D0, D1, D7, D9, E
BIOL 110 B	Human Anatomy with Lab	040100, 041000, 126000	5B, 5C	B2, B3
COMM 130	Interpersonal Communication	060100, 150600	1C, 4, 4G	A1, A3, D, D7, E
CHEM 120 S	General Chemistry for Science Majors Sequence A	190500	5A, 5C	B1, B3

RESULTS

- Most popular areas by frequency in 100 transferable GE courses with the highest enrollment over the past 3 years are -
- By TOP codes: 22 – Social Sciences, 15 – Humanities, 20 – Psychology, 04 – Biological Sciences, 19 – Physical Sciences.
- By IGETC codes: 4 – Social Sciences, 5C – Science Laboratory, 3B - Humanities, 4G - Interdisciplinary, Social & Behavioral Sciences , 4J - Sociology & Criminology
- By CSU-GE-Certification codes: D - Social Sciences, D7- Interdisciplinary Social or Behavioral Science, E- Lifelong Understanding and Self-Development , C2- Humanities {Literature, Philosophy, Languages Other than English} , B3- Laboratory Activity

MATCH RATES

Data	Unique by	Number of Records	% of Above
ASSIST			
(CSUGE+IGETC, 2020-now)	College, Dept Name, Dept Number, Min & Max credits	38,445	-
Not matched with COCI	College, Dept Name, Dept Number, Min & Max credits	1,845	5%

Data	Unique by	Number of Records	% of Above
Matched with COCI	College, Course Control Number	39,954	-
Not matched with C-ID	College, Course Control Number	25,416	64%
Matched with C-ID	C-ID Number	262	-

DATA CHALLENGES

- Challenge 1: No consistent college identifier and course identifier between the ASSIST and the COMIS data
- Solution:
- Built a crosswalk for college codes between ASSIST and COMIS
- Joined ASSIST with COCI by College, Dept Name, Dept Number, Min Units, Max Units to obtain Control Number (course identifier in COMIS) for transferrable GE courses
- Cleaned up space, dash, and zeros between letters and numbers in Dept Name & Dept Number to improve match rate – e.g. We could join courses as “MATH 01” in one source and “MATH-1” in another source with this clean-up.
- Challenge 2: Without joining similar courses at different colleges, systemwide results will be biased by college size.
- Solution: Joined ASSIST with C-ID by College, Dept Name, Dept Number to identify similar courses across colleges
- Similarly, we built a college crosswalk between the two sources and applied clean-ups to Dept Name & Dept Number for the match.

CAVEATS

- Caveat 1: The match key (College, Dept Name, Dept Number, Min Units, Max Units) is not an exact and unique course identifier.
- Inconsistent Dept Name & Dept Number across sources:
- Examples:
- (1) Physical Geology at Sacramento City College is GEOL 302 in ASSIST but GEOL302-3061 in COCI. Our methodology does not match the two records.
- (2) Principles of Healthful Living at Feather River College (HES 100) in ASSIST is not found in COCI.

- Unable to examine enrollment for unmatched courses.
- Courses share the same match key:
- Example: Programming and Problem-Solving in MATLAB at Butte College is ENGR 2 in ASSIST. While we match it with its COCI record, it is also matched with a non-transferrable GE course, Engineering Graphics, as it is ENGR-2 in COCI.
- Results may be matched in enrollments for non-transferrable GE courses.
- Caveat 2: Not all the courses are in C-ID.
- Examples:
- (1) Magic, Witchcraft, and Religion (ANTH 13) at Butte College is not found in the C-ID data.
- (2) Elementary Spanish (SPAN 1) at Mt. San Antonio College is not found in the C-ID data. Instead, Spanish for the Spanish Speaking (SPAN 1S) is in the C-ID data as the articulated course for Elementary Spanish at the college.
- Unable to identify similar courses at different colleges that are not in the C-ID program/data.

MATCH RATES

Data	Unique by	Number of Records	% of Above
ASSIST			
(CSUGE+IGETC, 2020-now)	College, Dept Name, Dept Number, Min & Max credits	38,445	-
Not matched with COCI	College, Dept Name, Dept Number, Min & Max credits	1,845	5%
Matched with COCI	College, Course Control Number	39,954	-
Not matched with C-ID	College, Course Control Number	25,416	64%
Matched with C-ID	C-ID Number	262	-

KEY TAKEAWAYS

- Transferable GE courses over the past 3 years are sorted by enrollment with TOP codes and GE area codes attached for the CCN task force.
- Courses with the highest enrollment over the past 3 years are: College Composition (ENGL 100), Introduction to Statistics (MATH 110), Public Speaking (COMM 110).

- Results are noisy/incomplete due to challenges to join courses across databases and across colleges.
- To join courses across databases, we currently rely on an approximate string matching based on college, dept name and dept number. The match key cannot uniquely and exactly identify courses, causing course records unmatched / noisily matched and information loss as a result.
- To join similar courses across colleges to examine system-wide course-taking patterns, we currently rely on matching with the C-ID data based on college, dept name and dept number. We have the same fuzzy matching issue as above and cannot join courses if not in the C-ID program/data.

APPENDIX – TOP CODES

- 01 – Agriculture and Natural Resources
- 02 – Architecture and Environmental Design
- 03 – Environmental Sciences and Technologies
- 04 – Biological Sciences
- 05 – Business and Management
- 06 – Media and Communications
- 07 – Information Technology
- 08 – Education
- 09 – Engineering and Industrial Technologies
- 10 – Fine and Applied Arts
- 11 – Foreign Language
- 12 – Health
- 13 – Family and Consumer Sciences
- 14 – Law
- 15 – Humanities
- 16 – Library Science
- 17 – Mathematics
- 18 – Military Studies
- 19 – Physical Sciences

- 20 – Psychology
- 21 – Public and Protective Services
- 22 – Social Sciences
- 30 – Commercial Services
- 49 – Interdisciplinary Studies

APPENDIX – GE AREA CODES

- IGETC-Code:
 - 1A – English Composition
 - 1B – Critical Thinking - English Composition
 - 1C – Oral Communication {CSU requirement only}
 - 2A – Math
 - 3A – Arts
 - 3B – Humanities
 - 4 – Social Sciences
 - 4A – Anthropology and Archaeology
 - 4B – Economics
 - 4C – Ethnic Studies
 - 4D – Gender Studies
 - 4E – Geography
 - 4F – History
 - 4G – Interdisciplinary, Social & Behavioral Sciences
 - 4H – Political Science, Government & Legal Institutions
 - 4I – Psychology
 - 4J – Sociology & Criminology
 - 5A – Physical Science
 - 5B – Biological Science
 - 5C – Science Laboratory
 - 6A – Language Other Than English

- 7 – Ethnic Studies
- 8A – Critical Thinking
- 8B – English Composition
- 8C – English Composition – 2nd Quarter
- CSU-GE-Certification-Code:
 - A1 – Oral Communication
 - A2 – Written Communication
 - A3 – Critical Thinking
 - B1 – Physical Science
 - B2 – Life Science
 - B3 – Laboratory Activity
 - B4 – Mathematics/Quantitative Reasoning
 - C1 – Arts {Art, Dance, Music, Theater}
 - C2 – Humanities {Literature, Philosophy, Languages Other than English}
 - D – Social Sciences
 - D0 – Sociology and Criminology
 - D1 – Anthropology and Archeology
 - D2 – Economics
 - D3 – Ethnic Studies
 - D4 – Gender Studies
 - D5 – Geography
 - D6 – History
 - D7 – Interdisciplinary Social or Behavioral Science
 - D8 – Political Science, Government and Legal Institutions
 - D9 – Psychology
 - E – Lifelong Understanding and Self-Development
 - F – Ethnic Studies

APPENDIX – ENGL 100 COURSE EXAMPLES

College	Dept Name	Dept Number	Course Title	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
Butte College	ENGL	2	Reading-Composition	150100	1A	A2
Butte College	ENGL	3	Reading-Composition Intensive	150100	1A	A2
Grossmont College	ESL	122	College Rhetoric	493087	1A	A2
Grossmont College	ENGL	120	College Composition & Reading	150100	1A	A2
American River College	ESLW	340	Advanced Composition	493084	1A	A2
American River College	ENGWR	300	College Composition	150100	1A	A2
College of San Mateo	ENGL	100	Composition	150100	1A	A2
College of San Mateo	ENGL	100	Composition	150100	1A	A3

APPENDIX – MATH 110 COURSE EXAMPLES

College	Dept Name	Dept Number	Course Title	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
Grossmont College	MATH	160	Elementary Statistics	170100	2A	B4
Grossmont College	PSY	215	Statistics for the Behavioral Sciences	200100	2A	B4
Grossmont College	SOC	215	Statistics for the Behavioral Sciences	220800	2A	B4
Grossmont College	ANTH	215	Statistics for the Behavioral Sciences	220200	2A	B4

College	Dept Name	Dept Number	Course Title	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
Cosumnes River College	ECON	310	Statistics for Bus and Econ	220400	2A	B4
Cosumnes River College	STAT	300	Intro to Probability and Stat	170100	2A	B4
Napa Valley College	MATH	232	Statistics	170100	2A	B4
Sierra College	PSYC	142	Intro Psychological Statistics	209900	2A	B4
Diablo Valley College	BUS	240	Business Statistics	050500	2A	B4
City College of San Francisco	LALS	5	Intro Statistic Latin America	179900	2A	B4
Skyline College	BUS	123	Statistics	050600	2A	B4
Yuba College	PSYCH	6	Intro to Statistics in Soc/Behv Science	200100	4	B4
Yuba College	PSYCH	6	Intro to Statistics in Soc/Behv Science	200100	4	D

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