



# California Community Colleges

## AB 1111 COMMON COURSE NUMBERING TASK FORCE DRAFT – SUMMARY REPORT

Draft as of November 17, 2023

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8 This document is being publicly released in November 2023. It is a draft of the final summary  
9 report for the Common Course Numbering Task Force (hereafter “CCN Task Force”), which the  
10 CCN Task Force will discuss at the forthcoming public meeting (December 7, 2023). An earlier  
11 version was released in September 2023 and discussed by the CCN Task Force at its October  
12 2023 public meeting.

13  
14 **Please note:** This document is still in draft form. The final version will be copyedited, designed,  
15 etc.

16  
17 Details about the CCN Task Force, including its meeting agendas and materials, can be found at  
18 its website:

19 <https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Educational-Services-and-Support/common-course-numbering-project>

21

## 22 ACKNOWLEDGEMENTS

23

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27 Past President of the Academic Senate for California Community Colleges and Professor of  
28 Mathematics and Statistics at Sacramento City College, and Tram Vo-Kumamoto, Past President  
29 of the California Community Colleges Chief Instructional Officers and Vice President of  
30 Instruction at Saddleback College.

31

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38 knowledge.<sup>1</sup>

39

40 We are grateful to the CCC students who shared their transfer experiences with us: Marco  
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42 College); Casey Chang, Vice President of Communications, Student Senate for CCC (primary  
43 college is Mission College); Rachel Alazar, Pre-Nursing Student at Palomar College (primary  
44 college is Palomar College); and Gerardo Reyes, Inter-Club Council President, Reedley College  
45 Associated Student Government (primary college is Reedley College).

46

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- 49 ● San Diego Community College District: Shelly Hess, Dean of Curriculum; Andrew  
50 Hoffman, English Faculty and Past San Diego Mesa College Curriculum Review  
51 Committee Co-Chair; and Carmen Scott, Curriculum Technician.
- 52 ● Peralta Community College District: Nancy Cayton, Berkeley City College Curriculum  
53 Specialist; Laura Bollentino, Laney College Articulation Officer; and Heather Sisneros,  
54 Laney Curriculum Chair and District Curriculum Committee Co-Chair.
- 55 ● Los Angeles Community College District (LACCD): Elizabeth Atondo, LACCD Academic  
56 Senate Curriculum Chair and Articulation Officer; Dan Keller, LACCD Curriculum Dean;  
57 and Cathleen Rozadilla, East Los Angeles College Faculty Articulation Officer.

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58 <sup>1</sup> Sova is a mission-driven consultancy hired to support the CCCC in facilitating the CCN Task Force. You can learn  
59 more about Sova at [www.sova.org](http://www.sova.org).

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61 Mathematics Department and Lead Programmer, SOCRATES Curriculum Management  
62 System; Rhonda Farley, English as a Second Language Professor, Department Chair,  
63 Cosumnes River College; Renee Medina, Curriculum Chair, Sacramento City College; and  
64 Rose Giordano, Dean of Education and Health Professions, Sacramento City College.

65

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67 this work possible. The CCN Task Force also benefited from research conducted by a few  
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69 Landscape Scan. From the RP Group, Daisy Segovia, Senior Researcher and Alyssa Nguyen,  
70 Senior Director of Research and Evaluation supported a survey and qualitative research study  
71 focused on understanding CCC district experiences with CCN.

72

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

77

78 **PLACEHOLDER: Letter from the Deputy Chancellor**

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107 **EXECUTIVE SUMMARY**

108 [Assembly Bill 1111](#) (AB 1111)<sup>2</sup> calls on the California Community Colleges (CCC) to adopt a  
109 student-facing common course numbering (CCN) system in order to “streamline transfer from  
110 two- to four-year postsecondary educational institutions and reduce excess credit (unit)  
111 accumulation.”

112

113 To spur this effort, the California Community Colleges Chancellor’s Office (CCCCO) formed the AB  
114 1111 Common Course Numbering Task Force (CCN Task Force) to make recommendations for a  
115 systemwide implementation plan. Reflecting the CCCCCO’s participatory governance system, the  
116 CCN Task Force includes broad and diverse representation from across the system’s 72 districts  
117 and 116 colleges. Members reflect key stakeholder groups invested in and intimately  
118 knowledgeable about transfer student success, including: community college students  
119 themselves; faculty leaders, including representatives from the Academic Senate for CCC and  
120 articulation officers; administrative leaders, including representatives from the CCC Chief  
121 Instructional Officers; student service professionals, including student success deans;  
122 technology officers; institutional effectiveness researchers; chief executive officers; and trustees.  
123 Critically, the CCN Task Force has benefited from robust engagement of the CCC’s four-year  
124 transfer partners, the California State University (CSU), University of California (UC), and  
125 members of the Association of Independent California Colleges and Universities (AICCU). The  
126 CCN Task Force is collaboratively led by two co-chairs: Virginia “Ginni” May, Past President of  
127 the Academic Senate for CCC and Professor of Mathematics and Statistics at Sacramento City  
128 College, and Tram Vo-Kumamoto, Past President of the CCC Chief Instructional Officers and Vice  
129 President of Instruction at Saddleback College.

130

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

- 135 ● **Definition and scope of a student-facing common course numbering system.** To  
136 better support students and meet the transfer-focused intent of the legislation, the CCN  
137 Task Force defines student-facing CCN as a system that ensures that all students can  
138 identify courses across the system as being comparable and therefore transferable,  
139 applicable and articulated to degree completion across the CCCs *and also to* the CSU and  
140 the UC and to independent colleges and universities in California regardless of CCC  
141 sending institution.

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142 <sup>2</sup> California State Legislature. 2021. [Assembly Bill No. 1111, Postsecondary Education: Common Course Numbering](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1111)  
143 [System](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1111). [https://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220AB1111](https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1111)

- 144 ● **A new vision for intersegmental transfer, articulation, and collaboration in**  
145 **California.** The CCN Task Force has designed a robust CCN system to be implemented in  
146 concert with a new vision for dramatically improved transfer and articulation across the  
147 state of California. To realize that vision, the CCN Task Force is calling for a resourced  
148 infrastructure for intersegmental faculty collaboration – inclusive of faculty from the  
149 CCCs, the UC, the CSU, and AICCU’s member institutions – that sets out a new way of  
150 approaching transfer.
- 151 ● **Expected outcomes of student-facing CCN.** The CCN Task Force expects that  
152 implementation of a student-facing CCN system, when done well, will achieve outcomes  
153 that include: easily identifiable courses that meet general education and major  
154 preparation requirements within the CCCs; improved articulation for transfer to four-year  
155 institutions; increased transparency about how courses transfer; improved technology  
156 infrastructure; and progress on the Vision for Success goals, including improved transfer  
157 student outcomes and the closing of equity gaps.
- 158 ● **A statewide intersegmental CCN Council, with an accompanying steering and**  
159 **operational structure.** The CCN Task Force recommends a CCN Council to set strategic  
160 direction and goals, guide the work of implementation work groups, and identify policy  
161 barriers to strong implementation of CCN. A Steering Committee, in coordination with  
162 the CCCCCO CCN operations team (staff, contractors, etc.), should provide planning and  
163 facilitation for the CCN Council. Work groups, specifically focused on CCN Development  
164 and CCN Technology and Processes, will carry the work forward, and the Recommended  
165 Implementation Plan includes recommendations for their charges, membership, guiding  
166 principles and activities.
- 167 ● **Foundational elements of a CCN system.** The CCN Task Force outlined  
168 recommendations such as: clear definitions of key terms related to the CCN  
169 Implementation; a framework for which course elements must be identical or equivalent  
170 for a course to be numbered the same with consistent transferability and applicability; a  
171 sample course numbering taxonomy system that aligns course identification across all  
172 CCCs and aligns with technological requirements from the different systems housing this  
173 information; and a CCN Descriptor development process that is efficient, of high quality,  
174 engages all segments, authentically engages faculty, provides opportunities for  
175 streamlining processes, and protects current students from disruptions.
- 176 ● **Foundational elements of a technology infrastructure.** The CCN Task Force’s  
177 recommendations address technology needs and solutions that will reconcile current  
178 data, increase data-informed decisions, expedite operational processes such as  
179 verifications of CCN Descriptor elements, and create a streamlined CCN repository linked  
180 to local curriculum software.

- 181 ● **A strategy for communicating well with all necessary stakeholders.** The CCN Task  
182 Force recommends a body of work designed to ensure the communication of the CCN  
183 work to all stakeholder groups, operationalized within the CCCCCO and supported in  
184 consultation with the CCN Council, its entities, and other stakeholders.
- 185 ● **A detailed and aggressive CCN Implementation Timeline.** The CCN Task Force  
186 established milestones that indicate how the CCN work will continuously progress  
187 through applying the new CCN system to groups of courses in a scheduled cycle  
188 (commencing 2024), while continuing to build toward a sustainable CCN infrastructure  
189 with CSU, UC, and AICCU (all three currently not mandated to participate), which is  
190 necessary to ensure that all existing and future courses going through the CCN process  
191 are accepted and approved for transfer across segments.

192  
193 The CCN Task Force acknowledges that CCN presents a historic opportunity to make the  
194 California higher educational system easier to navigate and finally addresses a long-recognized  
195 barrier that impedes countless students. While implementing a CCN system will not magically  
196 solve all of the pain points in the transfer student experience, it is necessary foundational work  
197 and, if done well, will enhance credit mobility and improve equitable associate and  
198 baccalaureate degree attainment. The CCN Task Force feels confident that the recommended  
199 implementation plan described in this Summary Report can and will result in a CCN system that  
200 has the potential to greatly benefit students and meet the stated intent of the AB 1111  
201 legislation. The CCN Task Force encourages all stakeholders to move forward quickly and  
202 responsibly, ensure funding and resources are available for implementing and sustaining an  
203 effort of this magnitude, and center the equitable success of our students.

204

## I. INTRODUCTION

### **Serving Today’s Diverse and Highly Mobile Learners**

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

***California Community Colleges meet today’s students “where they are”:<sup>3</sup>***

***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***

222 With its extensive reach, the CCCs have an important role to play in making a postsecondary  
223 credential accessible and preparing learners for in-demand jobs in a global economy. This  
224 includes providing a clear and efficient transfer pathway for those seeking a baccalaureate  
225 degree. In the 2019-20 academic year alone, more than 130,000 students successfully  
226 transferred from a CCC to a four-year institution.<sup>4</sup> The system’s role in making lower-division  
227 coursework broadly accessible and aligned to baccalaureate degree pathways is laid out in the  
228 California Master Plan for Higher Education. Today, one-half of all California State University  
229 (CSU) graduates and one-third of all University of California (UC) graduates began at a CCC.<sup>5</sup>

231 However, these are not the only transfer students that the CCCs produce. Today’s learners  
232 complete coursework across multiple CCCs – sometimes enrolling at more than one college  
233 simultaneously for various reasons. On average, 45% of CCC graduates who completed associate  
234 degrees over the last decade completed coursework at more than one CCC.<sup>6</sup> As students  
235 become increasingly mobile, it is imperative that they are able to easily identify, enroll in,  
236 transfer, and apply their CCC courses to their educational program of interest.

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244 <sup>3</sup> California Community Colleges Chancellor’s Office. 2023. Key Facts. <https://www.cccco.edu/About-Us/Key-Facts>

243 <sup>4</sup> Ibid.

242 <sup>5</sup> Ibid.

238 <sup>6</sup> Common Course Numbering Task Force. October 2022. “Understanding Within-System Mobility and Implications  
239 for AB 1111.”

240 <https://www.cccco.edu/-/media/CCCCO-Website/Files/ccn-taskforce-dii-a11y.pdf?la=en&hash=E9B2ADD936C091AF>  
241 BEDA32A0536B4EA1861F4914



## Course Numbering Systems: Cutting through the Course Transfer and Articulation Confusion

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247 Students who take courses across more than one college are more likely to end up with excess  
248 units from taking courses that are duplicative or not applicable to their chosen degree path.<sup>7</sup>

249 This is not surprising considering that the 73 independent college districts of the CCCs maintain  
250 local, unique course numbering systems for over 40,000 general education and transfer pathway  
251 courses.<sup>8</sup> Deciphering which courses are equivalent across colleges and understanding how  
252 these courses apply to requirements of a particular degree pathway can confuse even the  
253 savviest of students and most experienced of counselors.

254

255 Excess units cost learners valuable time and money and can deter them from reaching their  
256 educational goals, and the CCCCO has found inequities in who accrues excess units by age, race  
257 and ethnicity and gender.<sup>9</sup>

258

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

263

## Renewed Urgency to Improve Course Transfer

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

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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.<sup>10</sup>

275 The urgency to improve the student transfer experience comes from both within the CCCs and  
276 from our external environment. For the past six years, CCC faculty, staff, and administrators have  
277 worked with laser focus to advance student success and achieve the equity-centered goals of

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282 <sup>7</sup> California Community Colleges Chancellor's Office. December 2022. *Common Course Numbering Landscape Scan*.  
283 [https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)  
284 [hash=CC7DC4D3E47692A5ED3B9A726F90318413553806](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)

281 <sup>8</sup> Ibid.

280 <sup>9</sup> Ibid.

278 <sup>10</sup> Cuellar Mejia, M., Johnson, H., Perez, C.A. & Jackson, J. 2023. *Strengthening California's Transfer Pathway*. Public  
279 Policy Institute of California. <https://www.ppic.org/publication/strengthening-californias-transfer-pathway/>

285 the Vision for Success, the system’s guiding framework that was adopted by the Board of  
286 Governors in 2017.

287

288

### Vision for Success Goals<sup>11</sup>

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

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

302

303 Across our campuses, there have been numerous and multi-pronged efforts to address excess  
304 units and improve equitable transfer student outcomes, including targeted efforts to address  
305 course numbering. These include systemwide initiatives like the CCC faculty-led Course Number  
306 Identification System (C-ID) and local district-wide CCN initiatives. While data continue to  
307 suggest that transfer students face significant barriers to success, and there has been real  
308 interest in and commitment to developing clear information and strong transfer pathways, real  
309 structural barriers have inhibited efforts from achieving scale systemwide. Notably, while there  
310 have been at least three other efforts to build CCN systems since the 1980s, these efforts have  
311 historically been under-resourced and did not gain traction across all segments of higher  
312 education and were therefore not successful.

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317 <sup>11</sup> California Community Colleges Chancellor’s Office. 2023. Vision Goals and Core Commitments.

318 <https://www.cccco.edu/About-Us/Vision-for-Success/goals-and-commitments>

## Common Course Numbering Legislation<sup>12</sup>

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330 Meanwhile, political leaders and external community stakeholders have shown greater interest  
331 in improving transfer as a way to equitably increase degree attainment in California. Governor  
332 Newsom’s Recovery with Equity Task Force recently elevated the idea of a CCN system as a  
333 necessary element of a highly integrated postsecondary ecosystem that supports all learners.<sup>13</sup>

334 This idea evolved with Assemblymember Marc Berman in his [Assembly Bill 1111 \(AB 1111\)](#),  
335 which calls on the CCCs to adopt a CCN system in order to “streamline transfer from two- to  
336 four-year postsecondary educational institutions and reduce excess credit (unit) accumulation.”  
337 Signed into law in 2021, AB 1111 requires that, “on or before July 1, 2024, both of the following  
338 shall occur:

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(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.”<sup>14</sup>

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

348

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353 <sup>12</sup> See more at California Community Colleges Chancellor’s Office. December 2022. *Common Course Numbering*  
354 *Landscape Scan*.

355 [https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)  
356 [hash=CC7DC4D3E47692A5ED3B9A726F90318413553806](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)

350 <sup>13</sup> California Governor’s Council for Post-Secondary Education. 2021. *Recovery With Equity: A Roadmap for Higher*  
351 *Education After the Pandemic*. Taskforce Report.

352 <https://careereducation.gov.ca.gov/initiatives/recovery-with-equity/>

349 <sup>14</sup> See California Education Code 66725.5.

357 To spur this effort, the legislature appropriated \$10 million in one-time funding under the  
358 [Budget Act of 2021](#) to establish a work group to guide the design and implementation of the CCN  
359 system. As the entity responsible for maintaining compliance with CCC state legislative  
360 mandates, the CCCCCO formed the AB 1111 Common Course Numbering Task Force (CCN Task  
361 Force) to serve as this work group. Further, the legislators appropriated \$105 million in one-time  
362 funds within the 2022-23 budget for allocation to CCC districts to support implementation.<sup>15</sup>  
363

364 This presents an historic opportunity to make our colleges easier to navigate and finally address  
365 a long-recognized barrier that impedes countless students. While implementing a CCN system  
366 will not magically solve all of the challenges in the transfer student experience, it is necessary  
367 foundational work from which we can continue to build. In fact, representatives from several  
368 postsecondary systems that have implemented CCN report that CCN is beneficial for students  
369 and for state and institutional stakeholders.<sup>16</sup>  
370

371 Implementing CCN is necessary foundational work, but it is also hard work. Implementing CCN  
372 successfully and improving the transfer student experience and outcomes will require authentic  
373 participation by four-year transfer partners; the adjustment of policies and processes,  
374 particularly around articulation; and ongoing maintenance that can never be considered “done.”  
375 The road ahead is challenging, but it can be accomplished.  
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379 <sup>15</sup> California Community Colleges Chancellor’s Office. December 2022. *Common Course Numbering Landscape Scan*.  
380 [https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)  
381 [hash=CC7DC4D3E47692A5ED3B9A726F90318413553806](https://www.cccco.edu/-/media/CCCCO-Website/docs/report/cccco-report-common-course-numbering.pdf?la=en&hash=CC7DC4D3E47692A5ED3B9A726F90318413553806)

378 <sup>16</sup> Ibid.

## II. ABOUT THE CCN TASK FORCE

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383

384 The CCCCO is committed to honoring the professional and lived expertise of our faculty, staff,  
385 students, and campus leaders who engage with these issues every day. In 2022, the CCCCO  
386 assembled the CCN Task Force to develop the student-centered vision and implementation plan  
387 for the CCN system.

388

389 The CCN Task Force is charged with establishing:

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

394

395

### Membership

396 Reflecting the CCCs' participatory governance system, the CCN Task Force includes broad and  
397 diverse representation from across the system's 73 districts and 116 colleges. Members reflect  
398 key stakeholder groups invested in and intimately knowledgeable about transfer student  
399 success, including: community college students themselves; faculty leaders, including  
400 representatives from the Academic Senate for CCCs and articulation officers; administrative  
401 leaders, including representatives from the CCC Chief Instructional Officers; CCC Registrars and  
402 Admissions Officers; student service professionals; student success deans; technology officers;  
403 institutional effectiveness researchers; chief executive officers; and trustees.

404

405 In addition, the CCCCO recognizes that any effort aimed at improving the transfer student  
406 experience must also have active participation and buy-in from the four-year sector. The CCN  
407 Task Force thus includes – and has benefited from the robust engagement of – representatives  
408 from the AICCU, the CSU, and the UC.

409

410

### Leadership

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

416

417

## CCN Task Force Members

Stakeholder Group	# of Representatives	Name	Title	College
CCC Students	2	Robert Alexander	VP, Regional Affairs, Student Senate for California Community Colleges	San Bernardino Valley College
		[Vacant]		
CCC Faculty	4	Ginni May (co-chair)	Past President, ASCCC; and Professor of Mathematics and Statistics	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
CCC Admissions and Registrar Officers	2	Victor DeVore	Dean, Student Services	San Diego CCD
		Meredith Marasco	Evaluator	Butte College
CCC 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
CCC Chief Student Services Officers	1	Robyn Brammer (through 9/23) Nicole Porter (began 10/23)	VP, Student Services	Cerritos College
CCC Technology Officers	2	Rachel Stamm	Curriculum Systems Consultant	CCC Tech Center
		Rupinder Bhatia	Executive Director,	San

Stakeholder Group	# of Representatives	Name	Title	College
			Information Technology	Jose-Evergreen CCD
CCC Researchers	1	Jeremy Brown	Vice President of Instruction	Yuba College
CCC Chief Executive Officers	1	Marilyn Flores	Superintendent-President	Rio Hondo College
CCC Trustees	1	Deborah Ikeda	Trustee	State Center CCD
CCC Chancellor's Office	2	Aisha Lowe	Executive Vice Chancellor	CCC Chancellor's Office
		John Stankas	Vice Chancellor	CCC Chancellor's Office
California State University	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

419

420

### Timeline of CCN Task Force Activities

421 Beginning in September 2022, the CCN Task Force began meeting bi-monthly for a total of eight

422 public meetings to create a definition of the CCN system and develop a framework to guide

423 implementation of this new system across all CCC campuses by July 1, 2024.

424

2021	2022-2023
October 6: Bill signed into law and Ed Code 66725.5 established	CCCCO 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.)

425

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

437

438 Next, the CCN Task Force consulted with practitioners from multiple college districts within the  
439 CCCs that have implemented a local CCN system to better understand lessons learned from  
440 implementation, key questions to pose, and considerations to take into account for a  
441 systemwide CCN rollout. The CCN Task Force also contemplated complex questions regarding  
442 how a CCN system for the two-year sector could articulate to the four-year sector and align with  
443 other ongoing transfer reform efforts, such as [AB 928](#) implementation.<sup>17</sup>

444

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

447

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448 <sup>17</sup> California State Legislature. 2021. *Assembly Bill No. 928, Student Transfer Achievement Reform Act of 2021:*  
449 *Associate Degree for Transfer Intersegmental Implementation Committee.*

450 [https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=202120220AB928](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"> <li>● Clarify the <a href="#">legislative charge</a> of the CCN Task Force, expectations and roles of members and available facilitation support.</li> <li>● Review <a href="#">current data</a> on community college transfer student success.</li> <li>● Introduction to the <a href="#">landscape scan</a> on CCN, including lessons from other states.</li> <li>● Begin to define a student-facing CCN system for the CCCs.</li> </ul>
November 29, 2022	<ul style="list-style-type: none"> <li>● Hear directly from students to understand their experiences with course transfer.</li> <li>● Learn from colleagues involved in prior CCN efforts, including representatives from San Diego and Peralta Community College Districts and a discussion of the CCCC-ID system.</li> <li>● Define the CCN Task Force’s role in AB 1111 implementation and begin to identify appropriate elements and work streams for the implementation plan.</li> </ul>
February 23, 2023	<ul style="list-style-type: none"> <li>● Learn from colleagues involved in prior CCN efforts, with representatives from the <a href="#">Los Angeles</a> and the <a href="#">Los Rios</a> Community College Districts.</li> <li>● Engage in learning around <a href="#">four-year articulation processes</a>.</li> <li>● Consult with RP Group on CCN Task Force research needs.</li> </ul>
April 27, 2023	<ul style="list-style-type: none"> <li>● Review RP Group <a href="#">preliminary research findings</a> from a survey of CCC districts with CCN.</li> <li>● Clarify outcomes for implementation planning.</li> <li>● Define planning work streams for the implementation.</li> </ul>
June 22, 2023	<ul style="list-style-type: none"> <li>● Discuss aligning course elements to CCN definition and schema.</li> <li>● Review updated research from the <a href="#">RP Group</a>.</li> <li>● Discuss <a href="#">CCN Task Force communications</a>.</li> </ul>
August 31, 2023	<ul style="list-style-type: none"> <li>● Review CCN Task Force summary report outline and timeline for development.</li> <li>● Discuss public draft of a report entitled <a href="#">“CCN Task Force Draft Outline, Findings and Considerations for the Summary Report.”</a></li> </ul>
October 18, 2023	<ul style="list-style-type: none"> <li>● Review public draft of the CCN Task Force’s <a href="#">Summary Report</a>, which includes the Recommended Implementation Plan.</li> </ul>
December 7, 2023	<ul style="list-style-type: none"> <li>● Finalize the CCN Task Force’s <a href="#">Summary Report</a>, which includes the Recommended Implementation Plan.</li> </ul>

### III. RECOMMENDED IMPLEMENTATION PLAN

452

453

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

459

#### 460 **A. Scope and Definition of Student-Facing Common Course Numbering**

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

469

470 To better support students and meet the transfer-focused intent of the legislation, the CCN Task  
471 Force defines student-facing CCN as a system that ensures that all students can identify courses  
472 across the system as being comparable and therefore transferable, applicable and articulated to  
473 degree completion across the CCCs *and also to* the CSU and the UC and to independent colleges  
474 and universities in California regardless of CCC sending institution. To achieve this goal, the CCN  
475 Task Force has outlined a minimum set of elements that all courses should have in common,  
476 including a number of elements that are vital for ensuring articulation. Proposing a minimum  
477 set of elements ensures that faculty continue to have appropriate influence over the content of  
478 their courses (see “E.1.d Implementation Recommendation - CCN Descriptors” for additional  
479 details).

480

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

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

489 **B. A New Vision for Intersegmental Transfer, Articulation and Collaboration in California**

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

494

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

500

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

506

507 By working together, with all needed partners at the table, the state of California can achieve  
508 transparent and effective transfer pathways that maximize other state investments in areas such  
509 as student aid, the California General Education Transfer Curriculum (Cal-GETC, established by  
510 AB928 (Berman, 2021)) and the Associate Degree for Transfer (ADT). An effective infrastructure  
511 for intersegmental faculty collaboration will require the support of senior leadership across the  
512 segments as well as incentives for faculty from all of the segments to engage in this hard work.  
513 This new vision strategically aligns with similar discussions and recommendations stemming  
514 from the [AB928 ADT Intersegmental Implementation Committee](#).

515

516 **C. Expected Outcomes of Student-Facing CCN**

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

- 519 ● For students that attend multiple CCCs, lower division general education and major  
520 preparation requirements will be easily identified within the CCCs as comparable in order  
521 to eliminate students unnecessarily retaking a course when taking courses across  
522 multiple community colleges.
- 523 ● The CCN Task Force intends for articulation to be improved for transfer into four-year  
524 public and independent universities as well. Current law would benefit those students  
525 that transfer within, or move around within, the CCCs, but participation by the CSU and  
526 UC and independent colleges and universities and the updating of current articulation

527 practices are needed for CCN to benefit students transferring to and from those  
528 institutions.

- 529 ● This process and statewide collaboration will:
  - 530 ○ Bring increased transparency and real efforts to address the structural, systemic  
531 and intersegmental barriers that students face regarding transfer and credit  
532 mobility.
  - 533 ○ Make progress on the following Vision for Success goals: reduce unit  
534 accumulation, improve transfer rates, and increase credential completion across  
535 CCCs by ensuring that students 1) understand how a course may or may not  
536 transfer and articulate within the CCCs and to UC, CSU, and independent  
537 institutions, and 2) take the courses they need to meet their educational goals  
538 regardless of the college where the courses were taken.<sup>18</sup>
  - 539 ○ Demand attention to and provide resources for needed improvements in a  
540 number of related areas, such as upgrading and aligning technology systems and  
541 developing processes that facilitate timely sharing of information among CCCs,  
542 and across other segments of postsecondary education.
- 543 ● In concert with other important student success efforts underway across the state, such  
544 as guided pathways implementation, disaggregated student outcomes data will  
545 demonstrate that equity gaps are closing and transfer student outcomes are improving.

#### 547 **D. Overarching Guiding Principles for the Implementation of Student-Facing CCN**

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

- 550 ● Embrace the CCN Task Force’s vision of a robust CCN system implemented in concert  
551 with a new vision for dramatically improved transfer and articulation across the state of  
552 California, supported by a resourced infrastructure for intersegmental faculty  
553 collaboration.
- 554 ● Ensure early, strong and consistent participation by faculty from the CCCs, UC and CSU  
555 and member institutions of the AICCU to achieve a new vision for transfer and  
556 articulation in California.
- 557 ● Align to the CCN Task Force’s definition of a student-facing CCN system, recognize the  
558 value of the high-level outcomes as articulated by the CCN Task Force, and embrace the  
559 CCN Task Force’s recommendations (e.g., CCN Descriptor Elements).
- 560 ● Design solutions that balance faculty, college, and system autonomies with student  
561 needs.
- 562 ● Commit to a strong implementation of student-facing CCN to better support students.

---

563 <sup>18</sup> California Community Colleges Chancellor's Office. 2021. *Update to the Vision for Success*.

564 <https://www.cccco.edu/-/media/CCCCO-Website/Reports/vision-for-success-update-2021-a11y.pdf>

- 565 • Apply principles and guidelines of [Universal Design](#) throughout this work.
- 566 • Embrace moving to a single data management system across the CCCs, that houses all
- 567 CCN Descriptors, verification processes, etc., as an aspirational goal, which aligns with
- 568 the CCC Chancellor’s Vision 2030 for the creation of a centralized data system that better
- 569 serves both staff and students.

570

## 571 **E. CCN System Governance**

### 572 **E.1 CCN Governance Structure**

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

#### 575 **E.1.a California Community Colleges Chancellor’s Office**

576 The CCCCCO is responsible for system-level support and coordination, with oversight of the  
577 dedicated resources for the administration and operational aspects of implementation.

#### 578 **E.1.b CCN Council: Charge and Membership**

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

581 The CCN Council, operating as a CCCCCO participatory governance group<sup>19</sup> inclusive of  
582 intersegmental decision-makers from four-year transfer partners, should set strategic  
583 direction and goals, guide the work of the various implementation work groups, and  
584 identify policy barriers to strong implementation of CCN. The assumption is that the CCN  
585 Council should work for approximately three years to advance strong and effective CCN  
586 implementation.

587

588 The CCN Council should be focused on CCN, and on processes and actions that are within the  
589 control of the CCCs. As such, the CCN Council cannot mandate articulation processes with  
590 transfer institutions. The CCN Council can encourage, facilitate, and support student-centered  
591 processes and procedures for determining course articulation in a collaborative fashion with  
592 transfer institutions such as CSU, UC, and members of the AICCU. That said, the CCN Council  
593 should ensure CCN is established in a way that is best suited for improved course articulation  
594 and acceptance by 4-year institutions and should fully engage decision-makers from the  
595 requisite 4-year systems to participate in CCN design and implementation and to advocate for  
596 policy changes within their systems and institutions that will help ensure CCC CCN has the  
597 desired positive impact on course articulation and student transfer success.

---

598 <sup>19</sup> California Community Colleges. January 2021. *2020-2021 Participatory Governance Handbook*.  
599 [https://www.cccco.edu/-/media/CCCCO-Website/Files/BOG/20202021participatorygovernancehandbookfinala11y4](https://www.cccco.edu/-/media/CCCCO-Website/Files/BOG/20202021participatorygovernancehandbookfinala11y4882581.pdf?la=en&hash=845F8B172FAD963AAB447A01F98103936D8D9782)  
600 [882581.pdf?la=en&hash=845F8B172FAD963AAB447A01F98103936D8D9782](https://www.cccco.edu/-/media/CCCCO-Website/Files/BOG/20202021participatorygovernancehandbookfinala11y4882581.pdf?la=en&hash=845F8B172FAD963AAB447A01F98103936D8D9782)

601

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

605

606 The CCN Council should be broadly representative of the statewide stakeholders implicated in a  
607 successful CCN implementation, inclusive of four-year transfer representatives from the UC, CSU  
608 and AICCU. The full membership of the Council is still under development, but the CCN Task  
609 Force recommends the following constituent groups be considered for representation, with  
610 attention to balanced regional representation. Representation may also occur within CCN Work

611 Groups or Advisory Groups to the CCN Council:

- 612 ● California Community Colleges Chancellor's Office (CCCCO)
- 613 ● Academic Senate for California Community Colleges (ASCCC)
- 614 ● Student Senate for California Community Colleges (SSCCC)
- 615 ● Chief Instructional Officers (CCCCIO)
- 616 ● Chief Student Services Officers (CSSO)
- 617 ● Chief Executive Officers (CEO)
- 618 ● Admission and Registrar Officers
- 619 ● Technology Officers
- 620 ● CCCCCO ESLEI, Data and Research Leads
- 621 ● Trustees
- 622 ● CCC, CSU, UC, and AICCU Students
- 623 ● CCC, CSU, UC, and AICCU Faculty
- 624 ● CCC, CSU, UC, and AICCU Leadership
- 625 ● CCC, CSU, UC, and AICCU Articulation Officers (AO)
- 626 ● CCC Curriculum Specialist
- 627 ● CCC Transfer Center Directors
- 628 ● Technology related groups such as:
  - 629 ○ Course Identification Number System (C-ID) Leadership
  - 630 ○ ASSIST Leadership
  - 631 ○ COCI Specialist
  - 632 ○ CISOA Leadership
  - 633 ○ Other technology-matter expertise as needed
- 634 ● Coordination with groups such as:
  - 635 ○ California Community Colleges Curriculum Committee (5C)
  - 636 ○ Intersegmental Curriculum Council (ICC) (formerly the Intersegmental Curriculum  
637 Workgroup)
  - 638 ○ General Education Advisory Committee (GEAC)

- 639 ○ Intersegmental Committee of the Academic Senates (ICAS)
- 640 ○ California Association of Community College Registrars and Admissions Officers
- 641 (CACCRAO)

642

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

645

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

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

650 The recommended charge of the Steering Committee is:

651 The Steering Committee, in coordination with the CCCCCO CCN operations team (staff,  
652 contractors, etc.), should provide planning and facilitation for the CCN Council. The  
653 Steering Committee is responsible for effective leadership and coordination of the CCN  
654 Council, through a process of soliciting agenda items from the full CCN Council and work  
655 group leads, drafting agendas, identifying content experts and research needed, and  
656 sending agendas out in advance of CCN Council meetings for review by other members.

657

658 The Steering Committee is made up of four representatives, one each appointed by the  
659 following: CCCCCO, Academic Senate for CCCs (ASCCC), Chief Instructional Officers (CIO) and Chief  
660 Student Services Officers (CSSO). The Steering Committee will be staffed by necessary CCCCCO  
661 staff and contractors.

#### 662 **E.1.d CCN Work Groups**

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

- 668 ● CCN Development Work Group; and
- 669 ● CCN Technology and Processes Work Group.

670

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

## 674 E.2 Guiding Principles

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

- 676 ● Embrace the iterative process of this work and regularly assess progress and modify  
677 direction as needed with a goal of continuous improvement.
- 678 ● Maintain the high-level proposed governance structure for a minimum of three years. In  
679 maintaining the structure, it will be important to review and assess roles and tasks  
680 annually, recommend, as appropriate, membership rotation for forward moving  
681 structure, modify or sunset working sub-groups, and engage advisory groups.
- 682 ● Advocate for funding for implementation of the work. Effective implementation will  
683 require resources, particularly for: an intersegmental infrastructure for CCN; faculty  
684 descriptor and course work; staff (classified professionals, faculty, and administrators)  
685 work to implement new processes and technology systems; and new technology  
686 purchases and implementation.
- 687 ● Align the CCN implementation to other critical efforts happening statewide, such as the  
688 recommendations of the AB 928 Associate Degree for Transfer Intersegmental  
689 Implementation Committee.
- 690 ● Ensure that there is a process to maintain critical data related to historical course  
691 numbering and articulation information through collaboration between key partners  
692 such as the Academic Senate for CCCs (ASCCC) and the CCCC.
- 693 ● Work to embrace existing structures when appropriate and feasible, rather than creating  
694 new structures.
- 695 ● Design a structure such that, as progress is made in the initial three-year  
696 implementation period, the CCN processes would run in parallel with the C-ID processes  
697 until CCN is well-established and assessment can be made to determine the  
698 opportunities for the CCN structure to complement and/or integrate with the C-ID  
699 structure.

700

## 701 F. Details on the CCN Work Groups

702 The CCN Task Force identified two work groups for implementation. Details on each of their  
703 recommended charges, membership, guiding principles and implementation recommendations  
704 follow. The groups are:

- 705 ● CCN Development Work Group; and
- 706 ● CCN Technology and Processes Work Group.

707

### 708 F.1 CCN Development Work Group

#### 709 F.1.a Charge and Membership

710 The recommended charge of the CCN Development Work Group is:



711 The CCN Development Work Group makes design recommendations to the CCN Council  
712 for the infrastructure and processes needed for curricular coordination to develop a  
713 common course and assign common course numbers. Of critical importance is that the  
714 CCN Development Work Group will coordinate, support and guide the intersegmental  
715 disciplinary teams resourced to complete the hard work of creating, adopting and  
716 implementing the CCN Descriptor. Additionally, this work group should engage  
717 stakeholders and research the impact of all CCC institutions adopting the CCN system.

718

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

### 723 **F.1.b Guiding Principles**

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

- 726 ● Support the vision that the development of CCN Descriptors supports articulation in  
727 California’s higher education ecosystem to function in a new way.
- 728 ● As much as possible, do not increase the amount or level of difficulty of the work colleges  
729 already have in their queue. When at all possible, reduce tasks and streamline processes.
- 730 ● Ensure broad intersegmental faculty participation from broad subject areas from the  
731 very beginning of the CCN implementation.
- 732 ● Support the aspiration for the acceptance of the CCN Descriptors to serve as the primary  
733 pathway to system articulation of individual courses.
- 734 ● Agree that student-facing CCN will require a minimum set of elements in a Course Outline  
735 of Record (COR). Honor academic freedom, as defined by American Association of  
736 University Professors (AAUP) and in [Protecting Academic Freedom During a Time of](#)  
737 [Significant Change](#) (ASCCC, 2020), by providing faculty complete autonomy in how they  
738 engage students in the delivery and assessment of the course content.
- 739 ● Ensure CCN Descriptors (a foundational document that defines the minimum common  
740 elements of a course for CCN; see below for additional details) will be developed by  
741 faculty (General Education and Subject Matter Experts) at the CCC level in collaboration  
742 with CSU, UC, and AICCU faculty, and supported by appropriate administrators and staff.  
743 During the process,
  - 744 ○ CCN Descriptors will then be adopted at the CCC systemwide level.
  - 745 ○ Participating CSU, UC, and AICCU campuses will evaluate and determine  
746 application opportunities for each CCN Descriptor, and raise any needed changes  
747 to resolve any application issues.

- 748           o Four-year transfer institutions having accepted a CCN Descriptor as sufficiently  
749           aligned with their equivalent course will honor course-to-course articulation with  
750           a course from any CCC that has been aligned with the CCN Descriptor.
- 751 ● Establish a collaborative and innovative spirit that provides opportunity to use modified  
752       processes to align courses that have already been through formal approval processes  
753       and that have faculty input throughout development. For example, in cases where  
754       curriculum does not change and courses have already been approved, move to  
755       implementation without going through an onerous review and approval process.
- 756 ● Related to the to-be-developed CCN taxonomy in particular:
  - 757       o Ensure the taxonomy immediately and clearly identifies courses that are  
758       commonly numbered.
  - 759       o Design a system that provides all information the course number needs to  
760       represent and let that determine the number of digits. Then work to resolve  
761       downstream impacts.
    - 762           ▪ Minimize the number of digits from the student perspective with the least  
763           impact on institutional workloads.
  - 764       o Provide students with clear communication regarding course identification, with  
765       a commitment to numbering and naming conventions that are easy to navigate  
766       independently and offer consistency across CCCs.

### 767 **Aligning CCN Work to Colleges on the Quarter System**

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

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

### 785 F.1.c Key Definitions Related to CCN Implementation

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

- 788 • **Articulation:** The process of developing a formal, written agreement that identifies  
789 courses (or sequences of courses) on a “sending” campus that are comparable to, and  
790 acceptable in lieu of, specific courses at a “receiving” campus.<sup>20</sup> Some additional notes  
791 about this definition include:
  - 792 ○ The goal is to establish strong course-to-course articulation.
- 793 • **Comparable:** Course (as a whole) has a minimum standard in common with another  
794 course, as demonstrated by elements included in the CCN Descriptor, to the degree  
795 needed for the course to be accepted in lieu of the receiving institution’s course.
  - 796 ○ **Identical** (Relates to elements of a course): Exactly the same.
  - 797 ○ **Equivalent** (Relates to elements of a course): Hold equal weight, worth, and value  
798 but are not necessarily identically worded.
- 799 • **Transferable:** A course completed at one college or university that is then granted  
800 baccalaureate credit by the receiving institution upon review by that institution, be it a  
801 CCC, CSU, UC, AICCU member or any other institution of higher education.
- 802 • **Applicability:** How the units of a transferable course are applied to specific degree  
803 requirements, such as general education or major requirements, at the receiving  
804 institution.
- 805 • **Duplication:** The result of a student completing courses that are comparable or courses  
806 with similar or overlapping content that fulfill the same requirement.

807  
808 The following definitions are to support consistent interpretation of this report’s content:

- 809 • **CCN Descriptors:** A CCN Descriptor is a foundational document that defines the common  
810 minimum components of a course outline of record (COR) for CCN. The CCN Descriptor  
811 Components include course number, course title, unit amounts, course description,  
812 prerequisites, course content, and student learning outcomes or objectives (Note: CCCs  
813 use “objectives” rather than “student learning outcomes” because course objectives are  
814 defined as a required component of the course outline of record per [Title 5 Sec. 55002](#)  
815 and the [Program and Course Approval Handbook](#). It is common for four-year institutions  
816 to use the term “student learning outcomes” in the same way as the term “objectives” is  
817 used by the CCCs).
- 818 • **Components of Course Outlines of Record:** For the purpose of this report and consistent  
819 with the 8th edition of the [Program and Course Approval Handbook](#), course outlines of

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820 <sup>20</sup> Adapted from: California Intersegmental Articulation Council. Spring 2013. *California Articulation: Policies and*  
821 *Procedures Handbook*. [https://www.csusb.edu/sites/default/files/upload/file/CIAC\\_Handbook\\_Spring\\_2013.pdf](https://www.csusb.edu/sites/default/files/upload/file/CIAC_Handbook_Spring_2013.pdf)

- 822 record (COR) will include the components required by Title 5 55002, including those  
823 components comprising a CCN Descriptor.
- 824 ● CCN-Aligned Course: This is a COR that has been developed based on a CCN Descriptor,  
825 has been deemed consistent with the CCN Descriptor, and is thus assigned the CCN  
826 number and related articulations.
  - 827 ● Curriculum: Curriculum, broadly defined, in the CCCs, refers to all aspects of instruction .  
828 It is inclusive of courses, CORs, educational programs, and the facilitation of learning  
829 within courses. The alignment of courses to the CCN system is a part of curriculum but  
830 not the totality.
  - 831 ● Educational Program: An educational program is a set of courses that together provide a  
832 focused field of study within a certificate or a degree.

### 833 **F.1.d-g Implementation Recommendations**

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

838

839 The following implementation recommendations are described in detail below:

840 F.1.d Implementation Recommendation - CCN Descriptors

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

843 F.1.f Implementation Recommendation - CCN Taxonomy

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

### 845 **F.1.d Implementation Recommendation - CCN Descriptors**

846 A CCN Descriptor is a foundational document that defines the common minimum elements of a  
847 course for CCN. The following table provides recommendations related to the expectations for  
848 alignment of CCN Descriptors.

849

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		Identical
Course Content	Required Topics	Identical
	Optional Topic Expansion	Additional details expanded - local college discretion
	(Optional Additional Topics - defined as part of CCN Descriptor development.)	
Student Learning Objectives/Outcomes	Required Objectives/Outcomes	Identical
	Optional Objectives/Outcomes Expansion (Optional Additional Objectives/Outcomes - defined as part of CCN Descriptor Development)	Additional details expanded - local college discretion

851

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

856

857 The recommended CCN Descriptor Elements table does not include all elements currently used  
858 for review of courses for transfer articulation. Notably, faculty syllabi, textbook, and assignments  
859 are not included. The CCN Task Force recommends that strong efforts are made by the  
860 intersegmental faculty groups to simplify the review of descriptor elements, as it adds to faculty

861 workload and may negatively affect students receiving transfer credits for CCC courses.  
862 Recognizing that faculty can benefit from the sharing of syllabi, resources, etc., to help align the  
863 level of rigor in a course, the intersegmental faculty groups are encouraged to explore other  
864 avenues for such sharing.  
865

### 866 **F.1.e Implementation Recommendation - Applicability for System-Developed CCN** 867 **Descriptors**

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

#### 870 **General Education Applicability**

871 Applicability of articulated courses to satisfy general education areas based on Cal-GETC  
872 standards.

873  
874 The courses based on CCN Descriptors will be applied to the same general education  
875 areas as designated by the Cal-GETC review process for all students who:

- 876 ● Complete courses at a CCC and transfer to another CCC;
- 877 ● Complete courses at a CCC and transfer to a CSU, UC, or AICCU institution; and
- 878 ● Complete courses at a CSU, UC, or AICCU institution and transfer to a CCC  
879 institution.

880  
881 In the event that a receiving institution does not have the same area, another area may  
882 be selected as best aligns with Cal-GETC standards.

883

884 \*Three instances for GE Applicability:

- 885 1. Full-certification of Cal-GETC results in acceptance as completion of all lower  
886 division general education requirements. Note: Cal-GETC implemented fall 2025  
887 inline with CCN Phase I course enrollment.
- 888 2. No Cal-GETC certification: Individual courses with CCN Descriptors will be applied  
889 to the appropriate General Education Area based on CCC system-level approval of  
890 Cal-GETC areas.
- 891 3. No Cal-GETC certification: Courses that are not developed through the CCN  
892 process are based on institutional level course-to-course articulation, or are  
893 evaluated by the receiving institution to identify how to best serve the student.  
894 This includes courses taken at institutions outside of California, courses taken  
895 before implementation of CCN, etc.

896

897 Receiving institutions may apply a course to a different GE area for which the  
898 course satisfies upon transcript evaluation if the change benefits the student and

899 aligns with Cal-GETC standards (for example: US History to Humanities or Social  
900 Science if approved in both of those Cal-GETC areas).

901

## 902 **Course-to-Course Articulations**

903 Applicability of CCN-aligned courses to course-to-course articulation.

904

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

- 906 ● Complete courses at a CCC and transfer to another CCC;
- 907 ● Complete courses at a CCC and transfer to a CSU, UC, or AICCU institution;
- 908 ● Complete courses at a CSU, UC, or independent institution and transfer to a CCC  
909 institution.

910

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

914

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

920

921 Course-to-Course Articulation Assumptions:

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

## 926 **F.1.f Implementation Recommendation - CCN Taxonomy**

927 This section provides recommendations for a taxonomy for the CCN system across the CCCs.

928

### 929 **Discussion of Current Taxonomies in Course Numbering Systems**

930 Throughout the CCCs, there is significant variability of numbering systems not only  
931 across the 116 institutions but also within a single institution. The technological data  
932 field [CB01](#) allows for 12 characters maximum for Subject Abbreviation and Number  
933 including spaces and dashes.<sup>21</sup> Here are samples of how numbering is currently done at

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934 <sup>21</sup> California Community Colleges. n.d. “Management Information System: Data Element Dictionary.”

935 <https://webdata.cccco.edu/ded/cb/cb01.pdf>

936 California community colleges, noting that the subject number (CB01B) contained the  
937 largest variance between the three datasets.  
938 (N= numerical digit, A = letter, 0 = placeholder)

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

939

#### 940 **Considerations for CCN Taxonomy**

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

- 943 ● Provides flexibility for managing local courses at individual or district institutions.
- 944 ● Distinguishes the currently numbered courses from the CCN numbered courses  
945 throughout the various systems that are in any way connected to the CCCs and  
946 their students.
- 947 ● Avoids duplication of current local-numbering systems that prohibits clear  
948 identification of current and CCN-based courses when listed in parallel.
- 949 ● Provides a method for implying traditional course level (first year, second year,  
950 etc.).
- 951 ● Provides a method for identification of speciality course types (e.g., Honors, Lab).
- 952 ● Provides enough scalability to incorporate the volume of current and future  
953 courses.
- 954 ● Accommodates local courses not in the CCN system with the expectation that all  
955 CCC institutions holistically adopt the CCN system.

956

#### 957 **Draft: A Proposed Taxonomy**

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



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**Subject**  
Based on 3-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**

**SUB 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**

	<b>MTH C1801HL</b>
<b>Subject</b>	MTH = Math
<b>Course Type</b>	C = CCN
<b>Course Number</b>	1801 = 100-level course
<b>Special Classifications</b>	H = Honors L = Lab only course

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**Further Collaboration**

Further collaboration amongst CCC leadership and implementation teams is needed to determine:

- 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. For example, the CCCIO has recommended a four-letter abbreviation for subjects to help avoid confusions (such as, does ENG = English or Engineering?)

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- If all CCC 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 CCC 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.

#### 1017 **F.1.g Implementation Recommendation - Common Course Descriptor Development**

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##### **CCN Descriptor Development and Implementation Process**

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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 course articulation, advising, course content, technology databases, and communication with students just to name a sample. The CCN system, though impacting the CCC course structure and offerings, directly impacts the daily work of the UC and CSU systems as well as all the individual independent colleges and universities within AICCU and HBCU partners.

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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.

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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

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with the “proof of concept” cohorts recommended above so that all stakeholders can have feedback and evidence about the changes proposed.

- Develop agreement around CSU and UC systems and/or individual institutions and AICCU institutions accepting CCN Descriptors as a basis for determining course-to-course articulations with the CCC system.
- Develop processes and standards for verification that a course meets required CCN elements, as defined by the CCN Descriptor developed through intersegmental collaboration.
- 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 faculty from all four segments.
- Intersegmental agreement that the descriptor is commonly numbered and that community colleges can then 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.
- College applies for a common course numbering designator that results in seamless transferability and portability of the course based on the 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 CCCCCO 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.

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- 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: CCC courses are identified as meeting the transfer level general education patterns.
  - Associate Degree for Transfer (ADT): Designates a set of courses meeting major requirements; and
  - Sequencing: CCC courses that are in a sequence (example: Calculus I, II, and III).
- The ASSIST and C-ID systems contain significant course-level and articulation information among CCC and 4-year institutions.
- The convening of faculty (in-person) 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 legislatures.
- Successful intersegmental collaboration can significantly reduce the volume of course reviews by faculty from 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 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 time to completion.

- 1112 ● Intersegmental collaboration is essential to modify requirements for courses  
1113 based on CCN descriptors and must respect and support faculty engagement  
1114 throughout the development process.
- 1115 ● Processes, agreements, and descriptors are developed in consideration of  
1116 relevant major preparation requirements and general education areas.
- 1117 ● Institutions of higher learning in California honor the legacy articulations as noted  
1118 in ASSIST to protect students who completed courses prior to the CCN system –  
1119 especially when prior articulation differs from the CCN system. The CCN  
1120 implementation is a moving-forward implementation.

1121

### 1122 **Phases of Course Clusters: Developing CCN Descriptors**

1123 While one goal of this work is to expedite the courses transitioning to the CCN system, a  
1124 primary goal is to assure quality of courses developed through high stakeholder  
1125 engagement. To this end, three progressive phases are defined below - each one  
1126 informing and improving the outcomes of the next. The first two phases serve as the  
1127 proof of concept providing opportunities to implement, evaluate, and refine the  
1128 processes and templates for application to the large scope of courses in Phase III.

1129

1130 Faculty engaged in Phase I and II will work in collaboration with intersegmental  
1131 leadership teams to inform the creation of a set of collaborative processes that will then  
1132 be applied to all other transfer courses in Phase III. The ASCCC can also provide feedback  
1133 related to course selection about courses that have faculty work groups primed and  
1134 eager to engage in this work.

1135

- 1136 ● Phase I: Phase I should engage with an initial set of high-enrollment courses to  
1137 develop CCN Descriptors (completed in 2024) leading to an initial set of CCN  
1138 courses being ready for fall 2025 enrollment. This cohort of courses will inform  
1139 needed processes, templates, professional development, etc. for Phases II and III.  
1140 The CCN Task Force recommends the selection of courses based on  
1141 high-enrollment data and alignment with Cal-GETC (e.g., Composition,  
1142 Introduction to Psychology, Political Science, Communication Studies, and  
1143 Statistics).
- 1144 ● Phase II: This cohort of courses will serve the role of evaluating and refining the  
1145 development processes and templates, testing technology-based  
1146 implementation, test-driving convening practices, and validating intersegmental  
1147 collaboration. See below for recommendations for selecting this cohort of  
1148 courses.
- 1149 ● Phase III: Along with the technology solutions, roll out the remaining transfer  
1150 courses.

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1152 The CCN Task Force offers the following set of considerations to guide the creation of the  
1153 course cohorts for Phase II. Course cohorts should:

- 1154 ● Prioritize addressing high-enrollment courses first, to ensure high-impact for  
1155 students.
- 1156 ● Continue to represent a minimum of one subject from each of the General  
1157 Education Areas (Cal-GETC).
- 1158 ● Include at least one course or sequence that directly impacts and engages  
1159 institutions on the quarter system.
- 1160 ● Satisfy both General Education and Major Preparation, to ensure that the proof of  
1161 concept contends with implications for both.
- 1162 ● Include Ethnic Studies, as many processes are currently being built for Ethnic  
1163 Studies and so it provides a useful comparative lens.
- 1164 ● Include Arts & Humanities courses.
- 1165 ● Include courses that naturally sequence together within a subject.
- 1166 ● Be based on impact data (i.e., which courses will impact the greatest number of  
1167 students).
- 1168 ● Leverage ASSIST to help identify local variations that all articulate the same way.
- 1169 ● Leverage C-ID descriptors to serve as a foundation and help to identify what is  
1170 missing in the CCN Descriptors based on intersegmental discussions.
- 1171 ● Align with and be informed by the Data Reconciliation and Analysis work.

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1173 See Appendix III Transferable GE Course Enrollments for initial course-level data.

## 1174 **F.2 CCN Technology and Processes Work Group**

1175 Similar to the complexity mentioned above in the development of CCN content, the  
1176 complexities of the technology and processes necessary to support a CCN system is vast and  
1177 technical. Technology solutions are needed to support the development work as well as the  
1178 actual day-to-day processes of implementation. The Work Group described below will be  
1179 instrumental in informing the work at the campus and system levels.

### 1180 **F.2.a Charge and Membership**

1181 The recommended charge of the CCN Technology and Processes Work Group is:

1182 The CCN Technology and Processes Work Group guides and supports the design and  
1183 implementation of the technology and related processes and supports needed for CCN  
1184 technology implementation. This group advises and monitors vendor work to ensure:  
1185 quality alignment to the scope of work, delivery of support to all institutions, changes do  
1186 not impact current student processes, and contracts are supported. Additionally, this  
1187 group collaborates with campus, district, and regional stakeholders to support efforts in  
1188 CCN integration.

1189

1190 Membership in the CCN Technology and Processes Work Group should include stakeholders who  
1191 are implicated in the effort to design and implement technology system requirements for  
1192 supporting the CCN implementation, such as CCCC Equitable Student Learning, Experience  
1193 and Impact Office (ESLEI), Data and Research, and IT Leads; ASSIST Director and staff; Course  
1194 Identification Numbering System (C-ID) Specialist; CCC technical staff (representatives from a  
1195 variety of institutional sizes, demographics, etc.); and vendor representatives as appropriate.  
1196 Curriculum chairs and curriculum specialists would also provide valuable perspectives and  
1197 support of this work.

### 1198 **F.2.b Guiding Principles for the CCN Technology and Processes Work Group**

1199 The CCN Task Force calls upon those implementing the activities called for in this  
1200 implementation plan to embrace the following guiding principles:

- 1201 ● Strive for digital equity in any technology and implementation approach.
  - 1202 ○ Digital equity exists when the technology infrastructure, tools, and resources
  - 1203 across all campuses provide a high-quality, secure, and seamless online
  - 1204 experience for students, faculty, and staff regardless of campus size or location.
- 1205 ● Center the high-level outcomes as articulated by the CCN Task Force.
- 1206 ● When implementing new technology systems, minimize additional costs and streamline
- 1207 existing systems.
- 1208 ● When selecting a CMS or any vendor solution to manage CCN or curriculum data
- 1209 elements, strive to select a system where college/district/state processes drive the
- 1210 software instead of the software driving the processes."

### 1211 **F.2.c Implementation Recommendations - Data Reconciliation**

1212 The implementation of technology solutions for a CCN system falls in two different categories:  
1213 Data Reconciliation and New Technologies. This section outlines the necessary considerations  
1214 for reconciling the current course level data across four systems so that all systems contain the  
1215 exact same information for any particular course. By reconciling the course data, the content of  
1216 courses can be analyzed to identify current commonalities.

#### 1217 **Conditions for Success**

1218 The CCN Task Force recognizes the importance of the following (related to data  
1219 reconciliation) for the successful implementation of the CCN system:

- 1220 ● The CCN work and data reconciliation work can be completed in parallel. The data  
1221 reconciliation work will not stall or slow the CCN processes and timelines. Work  
1222 may continue, for example, on convening faculty groups for a cluster of courses  
1223 (e.g., courses designated to satisfy specific areas of general education for  
1224 Cal-GETC or courses already aligned with the same C-ID identifier).
- 1225 ● The data reconciliation work will not impact the current articulation of courses  
1226 prior to CCN being implemented for that course.

- 1227 ● The data reconciliation work will focus on currently active courses and not those
- 1228 that are expired.
- 1229 ● The end result of data clean-up is the addition of a unique identifier and the
- 1230 consistency in the four data fields housing Course Title, Course/Subject Number,
- 1231 Course/Subject Name, and Units.
- 1232 ● There is a shared understanding that any changes to these four fields are
- 1233 corrections, and changing these values only for the purpose of consistency does
- 1234 not change the status of any course in any application.
- 1235 ● ASSIST commits to processing corrections to the four shared fields as a
- 1236 batch/migration without further effort required by the colleges.
- 1237 ● COCI and C-ID should coordinate with ASSIST to align the timing for processing
- 1238 the corrections.
- 1239 ● Resources and funding are available to support the following implementation
- 1240 strategies:
  - 1241 ○ Data vendor for reconciliation and analysis of course content;
  - 1242 ○ Funding for improving the interface and connecting COCI and C-ID;
  - 1243 ○ API programmers for system and local work;
  - 1244 ○ Data vendor/programmers to develop system-level repositories;
  - 1245 ○ Funding for adaptations in ASSIST; and
  - 1246 ○ Training support for new repositories and systems.

### 1247 **Data Reconciliation, Clean-up, and Analysis**

1248 Securing a data vendor for a one-time, centralized reconciliation effort has both  
 1249 immediate and long-term benefits for students, faculty, and staff. Data reconciliation  
 1250 results in the responses for each of the four shared elements (Course Title,  
 1251 Course/Subject Number, Course/Subject Name and Units) being reported the same in  
 1252 every “primary source” application and allows the courses to be linked at the database  
 1253 level.

### 1254 **Impact of Data Reconciliation and Clean-Up**

- 1255 ● CCN elements live in multiple “primary source” applications. This means
- 1256 that the data fields in COCI needed for CCN Descriptor work cannot be
- 1257 collected to pair with the C-ID fields. In order to create a CCN system, a
- 1258 unique identifier is necessary (like the course control number, which is
- 1259 used for management information systems (MIS) reporting) across all 3
- 1260 systems (ASSIST, COCI, C-ID).
- 1261 ● Analyzing data at the college level provides institutions with information
- 1262 about how course elements align to the CCN norm. This will reduce
- 1263 workloads when implementation begins.
- 1264



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### 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 a Common Course Outline of Record (CCOR) template based on the CCN Descriptors, 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 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

1274

Unique 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

Unique Elements	ASSIST	COCI	C-ID
*Course Content - Topics	Locked Data in C-ID and COCI COR		
*Student Learning Objectives/Outcomes	Locked Data in C-ID and COCI COR		

1275 \* Required common CCN Descriptor elements

1276

1277 **Systemic Challenges**

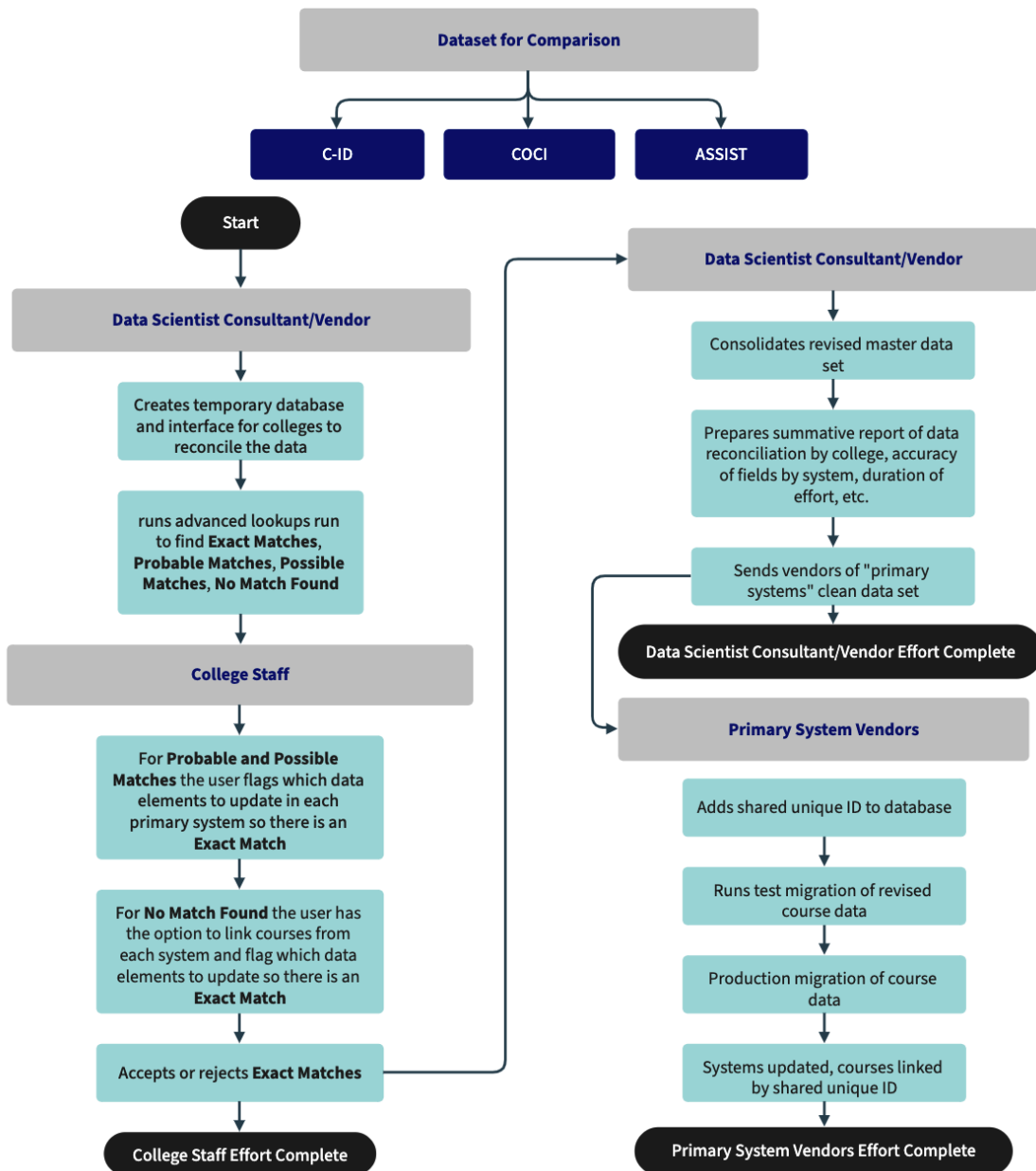
1278 The data reconciliation process is challenging in that there are many inconsistent  
 1279 practices across the community colleges and the current data structures do not  
 1280 necessarily provide systemic solutions. These challenges include:

- 1281 ● There was no standardization of College Name between the available reports;
- 1282 ● There was no unique ID for each course to automate matches between the  
 1283 reports;
- 1284 ● Headings were different within the reports for common data elements (e.g., Dept  
 1285 Name, Subject Name, Subject Name - CB01A);
- 1286 ● IGETC and CSU GE mappings are 1 subject area per row;
- 1287 ● SubjectName (CB01A) values varied widely within and between the colleges; and
- 1288 ● SubjectNumber (CB01B) contained the largest variance between the three  
 1289 datasets.

1290

1291 **Data Reconciliation and Analysis: Potential Deliverables**

1292 The following chart and information below provide deliverables that will result based on  
 1293 the system and local level efforts to align data across the different technologies (COCI,  
 1294 C-ID, ASSIST, local solutions).



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## Data Reconciliation

- Provide a documented plan that describes the changes identified as they relate to articulation agreements.
- 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.

- 1307 ● Sends vendors of “primary systems” clean data sets that include Course Control  
1308 Number as the shared unique ID; test migration; run migration in production.
- 1309 ● Result: systems updated; data standardization and courses linked by the Course  
1310 Control Number.

### 1311 **Analysis**

- 1312 ● Document how to access all of the data identified by the CCN Task Force as  
1313 needed for the minimum set of elements to be included in Course Outlines of  
1314 Record.
- 1315 ● Provide summative data of commonalities identified in courses, grouped by  
1316 descriptor elements. This information will be used to help inform the work of the  
1317 work groups to define standardization of CCN elements and prioritize work.

1318

### 1319 **Starting CCN Descriptor Work Prior to Data Reconciliation and Clean-Up**

1320 While the need for data reconciliation was evident, the CCN Task Force stressed the need  
1321 to begin the work on developing CCN Descriptors without any delay from the  
1322 reconciliation work. Running the two processes in parallel can result in each process  
1323 informing and improving the other. A set of courses (Phases I and II) functioning as a  
1324 proof of concept will allow a space for building the CCN Descriptors, testing templates  
1325 and data support, and ironing out any needed processes. Some data reconciliation and  
1326 clean up work can occur in parallel with the proof of concept. As the work group  
1327 identifies the small subset of courses with more consistent language, they will be able to  
1328 do so without data reconciliation. Aligning courses without common nomenclature will  
1329 benefit from a data summary. This will avoid potential biases from the work group, who  
1330 may not be aware of what nomenclature or CCN elements are already common across  
1331 the system.

### 1332 **F.2.d Implementation Recommendations - New Technology**

1333 The implementation of technology solutions for a CCN system falls in two different categories:  
1334 Data Reconciliation and New Technologies. This section outlines the necessary considerations  
1335 for developing new technologies to support managing the CCN courses and supporting the  
1336 processes critical to implementing this system in a streamlined and efficient fashion.

1337

#### 1338 **Conditions for Success**

1339 The CCN Task Force recognizes the importance of the following (related to new  
1340 technology) for the successful implementation of the CCN system.

- 1341 ● There is desire amongst the segments to apply technology as a solution for  
1342 streamlining and storing the CCN work.
- 1343 ● Without a repository for which to identify all CCN elements, colleges may not  
1344 succeed in having all courses matching each other.

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- 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 in this work such as AB 928, Cal-GETC, and AB 1111 to assure that changes made for one scope of work still accommodates 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 would extend easier to add workflows for submission and approvals associated with CCN designation.
  - COCI is already integrated with MIS.
- CVC-OEI (Online Exchange Interface) 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.
  - 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.)

San Jose City College Save to Favorites

## ENGL1A - English Composition

C-ID: ENGL100ENGLT0

### 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 ENCL 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 ENCL 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 IA - 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.

1375 **Streamlining Data Management - CCN Data Warehouse**

1376 The efficiency and success of the CCN work depends on the ability to streamline  
1377 processes and/or technological solutions. Merging of the COCI and C-ID data repositories  
1378 into a single system-level curriculum and articulation application results in a  
1379 module-based platform with specialist permissions, access walls, and respect for CCCC  
1380 curriculum review, faculty review in C-ID, and local curriculum approval and data  
1381 processes. This requires working with existing stakeholders to ensure necessary  
1382 functions are not lost in the merger.

1383 The current system requires triplicate data-entry (COCI, ASSIST and C-ID) resulting in a  
1384 substantial amount of human and fiscal resources to enter curriculum  
1385 updates/additions/deletions. In addition, colleges/districts typically will need to enter  
1386 curriculum information in their Curriculum Management Systems (CMS) in addition to do  
1387 similar data entry in their SIS.

1388 By creating an interface and/or common statewide system level repository, we can  
1389 ensure consistent data entry, facilitate the curriculum development process, and ease  
1390 the transition to a common course numbering system.

1391 A single system-level application results in:

- 1392 ● Single and consistent data-entry for each of the CCN descriptors.
- 1393 ● Established dedicated space for work streams/permissions, which  
1394 maintain currently accepted processes completed by statewide curriculum  
1395 and articulation personnel.
- 1396 ● A significant increase in course data available for research that is currently  
1397 fragmented.
- 1398 ● Development of Application Programming Interface's (API) and support for  
1399 local systems to resolve databases currently requiring manual entry.

1400  
1401 Successful integration of a single system-level data repository requires:

- 1402 ● An agreement with a single software company to develop the repository.
- 1403 ● Systemic influences and sponsorship of local CMS/SIS vendors required  
1404 work to ensure all colleges have equitable access and opportunity to  
1405 participate.
- 1406 ● Paying for consultants to develop local APIs from this curriculum software  
1407 to their SIS and providing training to promote sustainability on each  
1408 campus.
- 1409 ● An aggressive timeline for application development, testing, and  
1410 implementation of repository.

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- An equally aggressive timeline for implementing an API direct connect at the local level in all CCCs.
- Learning from prior system-level implementations such as the CCCs 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 exists in CCN.

### **Streamlining Data Management - Linking Repository to Local Curriculum Software**

Secure programmers to write customized APIs to connect the system repository to local curriculum software (CMS, SIS) and provide staff support and financial support to institutional level technology staff to complete the work, respect local processes and reduce entry.

Similarly, provide 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.

Options for automating the repository into local SIS systems. 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**

College Level Considerations

- Manual data entry significantly reduced.
- Complete alignment of data in local applications and system-level repositories.

- 1448 ● College staff would continue to control their data in the repository by initiating  
1449 data transfer through lookup tools or similar processes.

1450

#### 1451 System-level Considerations

- 1452 ● Leverage CCCCO and ASCCC to work directly with CMS vendors to drive schedule  
1453 and scope of API.  
1454 ● Testing and implementation is coordinated at the vendor level.  
1455 ● Need to determine how much customization exists to local off the shelf systems  
1456 and align resources to support college specific APIs.  
1457 ● Colleges using homegrown systems may need an alternate connection option  
1458 and/or additional resources to implement.

1459

1460 Successful integration of APIs requires dedicated resources.

- 1461 ● This is the least expensive and time effective method.  
1462 ● It would likely take an average of 40 IT hours to write an API to an existing  
1463 curriculum software. For colleges without an API from their curriculum software  
1464 to their SIS, this would also likely be written.  
1465 ● Timeline: 1 year for colleges with existing Curriculum-to-SIS APIs, and 3 years for  
1466 colleges requiring additional technology.

1467

#### 1468 **Streamlining Data Management - CCN Descriptors - Verifying Identical vs Equivalent** 1469 **for Articulation**

1470 The CCN Descriptors, having been vetted with intersegmental faculty from CCCs, CSUs,  
1471 UCs, and members of AICCU, contain elements that are required to be identical for any  
1472 courses based on a particular CCN Descriptor. The implementation of technology  
1473 solutions can verify courses that are identical to CCN Descriptors and which courses need  
1474 “human” or manual review as part of the approval process at the CCC and  
1475 UC/CSU/AICCU-institution levels.

1476

1477 Developing a technology solution for submitting a Common Course Outline of Record  
1478 (CCOR) using a template based on structured data will result in:

- 1479 ● The accessibility of the course data that is currently locked in PDF/text fields.  
1480 ● The development of a technology-assisted review process that will create greater  
1481 efficiency of process and better use of faculty reviewers’ time.  
1482 ● An opportunity to intersegmentally certify courses as identical to the CCN  
1483 Descriptors and to flag courses needing manual review.  
1484 ● An opportunity to streamline processes and provide automated approvals and  
1485 notifications.



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### Developing a system of electronic adoption

- Building a Common Course Outline of Record (CCOR) through the use of a structured data CCOR electronic template
  - College teams create courses by selecting appropriate descriptors for CCN courses or building content for local courses.
  - Each CCN Descriptor is housed in individual fields and set for submission against the minimum requirement for that descriptor (structured data). Additional fields are added for optional or variable content.
  - The CCOR is electronically submitted after appropriate local approvals to appropriate system sectors for chaptering/accepting (COCI, C-ID, ASSIST, etc.)
- Building an automated certification system
  - System checks for level of variance between CCOR and CCN Descriptors and flags CCOR for manual review if the course exceeds the established threshold. If the CCOR meets established parameters, the course is certified and chaptered.
  - 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 CCORs.

### 1507 F.2.d Implementation Recommendations - Structural Considerations for CCN Taxonomy

1508 The change in the parameters and use of any data field requires careful scrutiny related to its  
1509 impact on historical data as well as the capabilities for current systems to handle the changes.

1510 From the technical perspective, the development of a taxonomy system should:

- 1511 ● Not exceed the CB01 field parameters of 12 characters maximum for Subject  
1512 Abbreviation and Number including space, dashes, etc.
- 1513 ● Retain CB01 as the field for subject course and number while creating CB2x to flag the  
1514 course with a CCN designation.
- 1515 ● Locally handle showing of the different course numbers (CCN, C-ID Descriptor, and Old  
1516 Local Number) in catalog, etc.
- 1517 ● Engage early with big SIS vendors and built-in MIS reporting support to update with  
1518 changes.
- 1519 ● Result in easier access to MIS data from the research perspective.
- 1520 ● Recognize that altering the course numbering structure impacts not only technical  
1521 systems but also program updates when CCN courses are adopted and COCI program

1522 update processes. The impact on workload will also be a key factor in successful  
1523 transition.

1524

## 1525 **G. CCN Communication Body of Work**

1526 The CCN Task Force recognizes the need for significant operational support on communications.

1527 The Task Force agreed that communications to support CCN implementation will need to  
1528 include:

- 1529 ● A web site that provides timely, consistent, accurate, and accessible information on CCN  
1530 implementation to a variety of audiences, including students, faculty, legislators, college  
1531 leaders, etc.
- 1532 ● An effort to ensure that colleges receive clear and consistent information, shared with  
1533 one voice. This would include guidance for colleges designed to ensure student-facing  
1534 information (e.g., web sites) is accurate, easily navigable, and consistent.
- 1535 ● Guidance for faculty to ensure they understand the processes for creating CCN  
1536 Descriptors, developing Common Course Outlines of Record, etc.
- 1537 ● Early and regular coordination with ASSIST.
- 1538 ● Regular updates to a variety of constituents (e.g., students, faculty, staff, legislators,  
1539 trustees and others) about the progress and timelines for CCN implementation.
- 1540 ● Opportunities for public feedback.

1541

1542 Based on the need for consistent, transparent, timely, and clear communication, the CCN Task  
1543 Force recommends the communication work fall within the operational structure of the CCCCCO  
1544 team, with consultation and advisement from appropriate members of the CCN Council, its  
1545 Steering Committee, its work groups, and other stakeholders as needed depending on  
1546 subject-matter, and consistent with processes outlined in the CCC Board of Governors Standing  
1547 Orders.

1548

1549 The members of the CCN Council and its work groups should provide support to the  
1550 communications efforts by applying their understanding of the details of CCN implementation  
1551 while reviewing systemwide and intersegmental communications with an eye toward clarity and  
1552 consistency. Stakeholders should be consulted based on their area of expertise and their ability  
1553 to contribute to the identification of need, design, and implementation of strong  
1554 communications in support of an effective CCN implementation.

1555

### 1556 **G.1 Guiding Principles for the Communications Work**

1557 The CCN Task Force recommends that the activities called for in this recommended  
1558 implementation plan are grounded in the following guiding principles:

- 1559 ● Honor the CCN Task Force’s intention that the new CCN system will be presented
- 1560 consistently by each college as a single, transparent source of course information, and
- 1561 will be accessible within the resources students are most likely to use (i.e., in the catalog
- 1562 and schedule of classes).
- 1563 ● Seek to anticipate challenges and alleviate any stress of a new system implementation by
- 1564 communicating clearly and proactively.
- 1565 ● Center the student experience in all student-intended CCN communications, ensuring
- 1566 that the transition to the new CCN system is smooth and students have clarity on how to
- 1567 use the new system.
- 1568 ● Ensure that communications support students who took courses before, during, and
- 1569 after the implementation of the new CCN system.
- 1570 ● Consider the implications of the new CCN system broadly, taking into account the CCN
- 1571 Task Force’s intention that the CCN system will improve course articulation both within
- 1572 the CCCs and across four-year transfer partners.
- 1573

## 1574 **G.2 Implementation Recommendations - Statewide Communications Work Plan**

1575 Initial communication work by the CCCCCO, in collaboration with the ASCCC, CIOs, and CSSOs,  
 1576 should aim to outline a statewide communications plan, recognizing it is an iterative plan  
 1577 aligning with the work of the CCN Council. This communications plan should be phased and  
 1578 attend to at least the following:

- 1579 ● Provide guidance to colleges about how to prepare for the coming changes, when they
- 1580 will occur, and how stakeholders can collaborate to streamline efforts and maximize a
- 1581 smooth transition for all stakeholders, particularly students.
- 1582 ● Communicate to colleges the expectation that the new CCN system, developed
- 1583 collaboratively, with broad stakeholder input and vetting, will be presented consistently
- 1584 by each college as a single, transparent source of course information, and will be
- 1585 accessible within the resources students are most likely to use (i.e., in the catalog and
- 1586 schedule of classes).
- 1587 ● Provide guidance to students about the timeline and plan for the coming CCN system;
- 1588 ● Ensure students experience the CCN implementation as a smooth migration that is
- 1589 accurate and supportive of their success.
- 1590 ● Communicate with tech vendors, to include Assist.org, about the changes coming and
- 1591 what they might mean for technology systems in all segments.
- 1592 ● Support the CCN Council and working groups on communication-related activities.;
- 1593 ● Lead purposeful dissemination of information and gathering of feedback.
- 1594 ● Communicate with vendors (PeopleSoft, Ellucian, local CMS vendors (Elumen, Governet,
- 1595 others)) about the work underway and to gather needed information.

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- Share the survey results related to the Enterprise Resource Planning (ERP) and CMS solutions to deepen their understanding of systems in place at the CCC institutions.
- Initiate an awareness campaign with Academic Senates and other stakeholders
  - Collaboration on how processes could be approved for one time processes, batches, etc.
  - Collaboration on how technology processes can improve the workflow of course reviews and approval for the long term.

DRAFT

#### IV. CCN IMPLEMENTATION TIMELINE

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1606

1607 Assembly Bill 1111 was signed into law in October 2021 and established Education Code  
1608 66725.5, which requires implementation of a student-facing common course numbering (CCN)  
1609 system (including adoption into college course catalogs) for all general education requirement  
1610 and transfer pathways courses across CCC, on or before July 1, 2024. The stated intent of the  
1611 legislation is to streamline transfer from community colleges to four-year postsecondary  
1612 educational institutions and reduce excess unit accumulation. Since the establishment of the  
1613 law, the CCCCCO has worked with consultants and critical stakeholder groups to identify CCN  
1614 promising-practices, assess implementation needs, and develop implementation plans, through  
1615 conducting a national and statewide CCN landscape scan and convening a statewide CCN Task  
1616 Force. Research and progress of the CCN Task Force revealed that CCN implementation with  
1617 integrity requires more than engaging 116 CCCs in renumbering over 40,000 courses, but also  
1618 demands a student-centered approach that eliminates confusion and outcome variations  
1619 regarding how renumbered courses will count within CCCs and across California State University  
1620 (CSU), University of California (UC), and Association of Independent California Colleges and  
1621 Universities (AICCU) segments. Thus, the CCN Task Force engaged in finalizing recommendations  
1622 for a comprehensive CCN system implementation plan inclusive of: establishing what course  
1623 elements must be identical and/or equivalent for a course to be numbered the same; developing  
1624 a statewide intersegmental CCN steering and operational structure for ongoing CCN course  
1625 development, assessment, and alignment processes (considerate of local curriculum and  
1626 catalog processes); determining technology solutions that will increase data-informed decisions  
1627 and expedite operational processes; and identifying and addressing where CCN changes to CCC  
1628 courses will potentially disrupt existing course articulation/transferability with the CSU and UC  
1629 systems and AICCU institutions.

1630

1631 Recognizing the need to demonstrate the commitment to this work, the CCN Council should  
1632 strive to have Phase I courses utilizing common course numbering completed for fall 2025  
1633 enrollment. This cohort will inform the necessary processes that need to be developed.

1634

1635 The CCN Task Force design of the CCN system recommended implementation plan illustrates the  
1636 complexity and scale of this endeavor that necessitates additional time beyond July 2024 to  
1637 complete the work intended by the legislation. It was therefore proposed that the CCN system  
1638 implementation deadline be extended to fall 2027, with a comprehensive rolling  
1639 implementation towards full scale beginning in January 2024.

1640

1641 The detailed and aggressive timeline outlined in Appendix I establishes milestones that indicate  
1642 how the extension would allow for continuous progress to be achieved through applying the

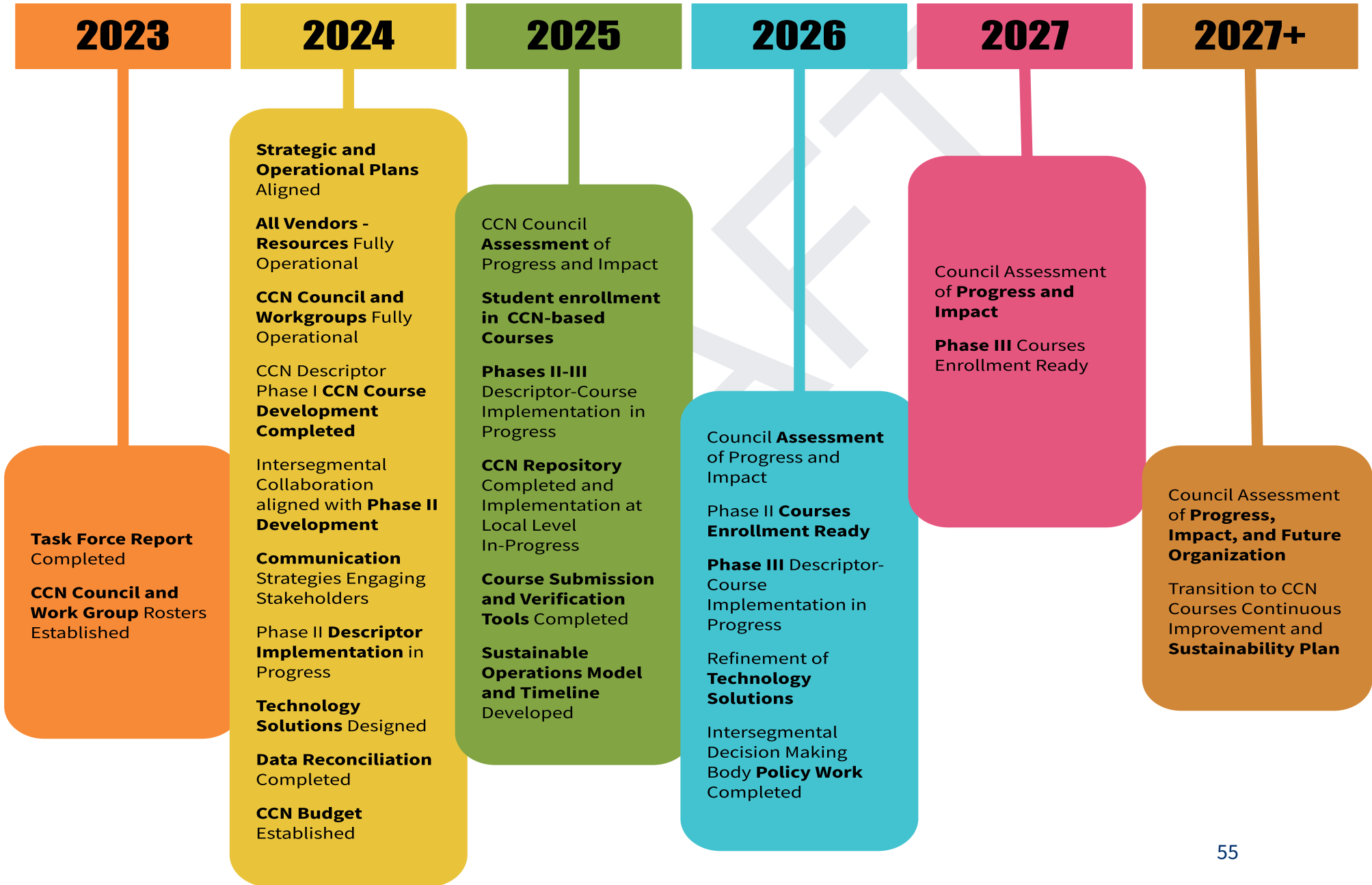
1643 new CCN system to groups of courses in a scheduled cycle (commencing 2024), while continuing  
1644 to build toward a sustainable CCN infrastructure with CSU, UC, and AICCU (all three currently not  
1645 mandated to participate), which is necessary to ensure that all existing and future courses going  
1646 through the CCN process are accepted and approved for transfer across segments.

1647

1648 The timeline overview below outlines immediate implementation outcomes including the set of  
1649 initial courses as well as long-term work to create a strong and sustainable system (see Appendix  
1650 I for additional details).

DRAFT

CCN Milestones Proposed Timeline 2023-2027+ (pending timeline extension request)



## V. CONCLUSION

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1654 The CCN Task Force is pleased to present this Summary Report, inclusive of a Recommended  
1655 Implementation Plan. The CCN Task Force represents a highly collaborative group that worked  
1656 diligently over approximately 16 months and engaged and honored the expertise of faculty,  
1657 staff, students, administrators, trustees, and representatives of the CCC's four-year transfer  
1658 partners from AICCU, UC and CSU. The CCN Task Force is confident that the implementation  
1659 plan described in this Summary Report can and will result in a CCN system that has the potential  
1660 to greatly benefit students and meet the stated intent of the AB 1111 legislation, which is to  
1661 streamline transfer from two- to four-year postsecondary educational institutions and reduce  
1662 excess unit accumulation.

1663

1664 Time is of the essence. CCC students need the clarity CCN will provide, and the work ahead will  
1665 be challenging, but rewarding. The CCN Task Force looks forward to the implementation effort  
1666 and encourages all necessary stakeholders to move forward quickly, ensure the funding and  
1667 resources are available for an implementation of this magnitude, and center the equitable  
1668 success of our students.

1669

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1670 **Appendix I: Detailed Proposed Timeline 2023-2027+ (pending timeline extension request)**

1671

1672 The CCN Task Force supports the goal of this work moving forward quickly to meet these timelines. This timeline represents the Task

1673 Force's best estimates of how this work will proceed; as the work proceeds, some of these details may change.

1674

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Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
<p>Fall 2023 (October to December)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>Recommend operations role within governance structure</li> <li>Establish meeting cadence</li> <li>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 funding for the work</li> </ul>	<ul style="list-style-type: none"> <li>Confirm appointments for Communication Advisory Group and engage participants</li> </ul>	<ul style="list-style-type: none"> <li>Confirm appointments and engage participants</li> </ul>	<ul style="list-style-type: none"> <li>Confirm appointments and engage participants</li> </ul>	<ul style="list-style-type: none"> <li>Complete vendor processes and agreement for operations, development, and technology</li> <li>Publish Task Force report</li> <li>Establish budget draft for implementation</li> </ul>
<p>Spring 2024 (January to March)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>Convene first meeting in January</li> <li>Inform Data Collection and Analysis (initial and on-going)</li> <li>Develop draft of an implementation</li> </ul>	<ul style="list-style-type: none"> <li>Convene first meeting</li> <li>Inform CCCCCO operational plan</li> <li>Communicate progress and details about the creation of templates and processes</li> </ul>	<ul style="list-style-type: none"> <li>Convene first meeting (goal: February)</li> <li>Inform CCCCCO operational plan and develop work group plan including expectations and norms.</li> </ul>	<ul style="list-style-type: none"> <li>Convene first meeting</li> <li>Inform CCCCCO operational plan and develop work group plan including expectations and norms</li> <li>Identify</li> </ul>	<ul style="list-style-type: none"> <li>Develop tentative operational plan, aligning with implementation plan</li> <li>Onboard and norm vendors</li> <li>Convene and facilitate Council Steering</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
	<p>plan and inform development of CCCCCO operational plan</p> <ul style="list-style-type: none"> <li>Engage intersegmental senior leadership in the development of practice and policy as descriptor development phase 1 (proof of concept) informs.</li> </ul>	<ul style="list-style-type: none"> <li>Transition and update CCN Task Force slides to CCN Council slides</li> <li>Create robust communication plan that solicits stakeholder groups' feedback and engages 2-year and 4-year partners</li> <li>Create a robust process for submitting feedback to the CCN work</li> <li>Inform colleges about funding for CCN work (See Appendix II)</li> </ul>	<ul style="list-style-type: none"> <li>Inform creation of templates and processes</li> <li>Initiate CCN Descriptor Phase I development which informs needed processes, professional development, etc.</li> <li>Create development plan (phases, timeline, processes, resources, work structure)</li> <li>Identify CCN Phase I courses</li> <li>Recruit and appoint Phase I intersegmental faculty and AO representatives</li> <li>Design training and run through the submission process to inform future work</li> </ul>	<p>milestones for technology solutions and target points for evaluation-adoption-abandoned decisions</p> <ul style="list-style-type: none"> <li>Inform creation of templates and processes for technology solutions based on emerging descriptor/course development</li> <li>Develop plan for technology solutions (reconciliation, repository, institutional support, submissions)</li> <li>Initiate data reconciliation</li> <li>Share the survey results related to the Enterprise Resource Planning (ERP) and CMS solutions with the CCN Council and</li> </ul>	<ul style="list-style-type: none"> <li>Convene and facilitate CCN Council</li> <li>Track, convene and/or facilitate work groups</li> <li>Inform decisions and assess progress through data collection and analysis</li> <li>Support templates and processes creation</li> <li>Facilitate creation of a plan for technology solutions (repository, institutional support, submissions)</li> <li>Work with stakeholder representatives for an equitable process for providing funding to colleges to do this work.</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
				<p>other identified stakeholders to deepen their understanding of systems in place at the CCC institutions</p>	
<p>Spring 2024 (April to June)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>Develop and publish 3-year implementation plan</li> <li>Engage intersegmental senior leadership to develop practice and policy and practice informed by the development of the CCN Descriptor</li> </ul>	<ul style="list-style-type: none"> <li>Create a checklist that clearly defines student facing implementation communication</li> <li>Update stakeholder groups on CCN processes and progress</li> <li>Initiate an awareness campaign with Academic Senates and other stakeholders <ul style="list-style-type: none"> <li>Include collaboration on how processes could be approved for one time processes,</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Develop and incorporate group training and norming on descriptor development</li> <li>Address inclusion of Cal-GETC (and other changes if/as appropriate)</li> <li>Develop CCN Descriptors for Phase I Courses</li> <li>Modify plan as determined by Phase I and intersegmental decision body</li> </ul>	<ul style="list-style-type: none"> <li>Continue data reconciliation and clean-up</li> <li>Complete data repository design</li> <li>Complete plan for institutional on-site support for linking data repository to local curriculum software</li> <li>Complete technology-based course submission and verification design</li> <li>Complete implementation plan for CCN Taxonomy</li> <li>Build timeline for technology solutions and processes</li> <li>Communicate</li> </ul>	<ul style="list-style-type: none"> <li>Complete operational plan</li> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
		<ul style="list-style-type: none"> <li>○ batches, etc.</li> <li>○ Include collaboration on how technology processes can improve the workflow of course reviews and approval for the long term</li> </ul>		<ul style="list-style-type: none"> <li>with technology vendors, especially Assist.org, about the changes coming and , how it might impact their technology systems and institutions</li> <li>● Communicate with vendors (PeopleSoft, Ellucian, local CMS vendors (Elumen, CurriQunet, others)) about the work underway and to gather needed information</li> </ul>	
<p>Fall 2024 (July to December)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>● Engage intersegmental senior leadership in the development of practice and policy informed by descriptor development.</li> <li>● Complete annual update and</li> </ul>	<ul style="list-style-type: none"> <li>● Update stakeholder groups on CCN processes and progress</li> <li>● Provide guidance to colleges about how to prepare for the coming changes, when they will occur,</li> </ul>	<ul style="list-style-type: none"> <li>● Continue implementation on Phase I: Descriptor vetting and institutional integration</li> <li>● Identify needed processes as determined by Phase 1 and intersegmental</li> </ul>	<ul style="list-style-type: none"> <li>● Complete data reconciliation and clean-up</li> <li>● Initiate implementation of established timeline</li> </ul>	<ul style="list-style-type: none"> <li>● Continue data collection and analysis to inform decisions and assess progress</li> <li>● Develop assessment plan in coordination with CCN Steering</li> <li>● Continue vendor</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
	progress report	and how stakeholders can collaborate to streamline efforts and maximize a smooth transition for all stakeholders, particularly students	decision body <ul style="list-style-type: none"> <li>Begin Phase 2 processes parallel to processes and template vetting.</li> </ul>		oversight and progress mapping
Spring 2025 (January to June) <i>Action plan and timeline may need adjustments as details are further developed.</i>	<ul style="list-style-type: none"> <li>Engage intersegmental senior leadership in the development of practice and policy as descriptor development informs.</li> <li>Assess progress and impact</li> </ul>	<ul style="list-style-type: none"> <li>Update stakeholder groups on CCN processes and progress</li> <li>Assess the capacity of local communication systems to handle the scope of changes</li> </ul>	<ul style="list-style-type: none"> <li>Continue implementation of Phase I CCN Descriptors published and courses prepared for fall enrollment</li> <li>Modify processes as determined by Phase I-II and intersegmental decision body</li> </ul>	<ul style="list-style-type: none"> <li>Implement technology solutions according to established timeline</li> </ul>	<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> </ul>
Fall 2025 (July to December) <i>Action plan and timeline may need adjustments as details are further developed.</i>	<ul style="list-style-type: none"> <li>Continue collaborative work with CCC, UC, CSU, and AICCU systems to enhance current practice to best support students.</li> <li>Develop annual</li> </ul>	<ul style="list-style-type: none"> <li>Update stakeholder groups on CCN processes and progress</li> </ul>	<ul style="list-style-type: none"> <li>Phase I Student Enrollment</li> <li>Modify processes as determined by Phases I-II and intersegmental decision body</li> <li>Continue implementation of</li> </ul>	<ul style="list-style-type: none"> <li>Implement technology solutions based on established timeline</li> <li>Complete the development of the CCN repository and implement at local level</li> </ul>	<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> <li>Create</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
	update and progress report		<ul style="list-style-type: none"> <li>Phases II-III in Process</li> </ul>	<ul style="list-style-type: none"> <li>Complete course submission and verification tools</li> </ul>	sustainable operations model and timeline in collaboration with CCN
<p>Spring 2026 (January to June)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>Assess progress and impact</li> </ul>	<ul style="list-style-type: none"> <li>Update stakeholder groups on CCN processes and progress</li> <li>Provide guidance to students about the timeline and plan for the coming CCN system</li> </ul>	<ul style="list-style-type: none"> <li>Modify processes as determined by Phases I-II and intersegmental decision body</li> <li>Continue implementation of Phases II-III</li> </ul>	<ul style="list-style-type: none"> <li>Refine technology solutions</li> </ul>	<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> </ul>
<p>Fall 2026 (July to December)</p> <p><i>Action plan and timeline may need adjustments as details are further developed.</i></p>	<ul style="list-style-type: none"> <li>Continue collaborative work with CCC, UC, CSU, and AICCU systems to enhance current practice to best support students.</li> <li>Develop annual update and progress report</li> </ul>	<ul style="list-style-type: none"> <li>Update stakeholder groups on CCN processes and progress</li> </ul>	<ul style="list-style-type: none"> <li>Complete Phase II: CCN Courses are enrollment ready</li> <li>Continue implementation of Phase III</li> </ul>	<ul style="list-style-type: none"> <li>Refine technology solutions</li> </ul>	<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress <ul style="list-style-type: none"> <li>Continue vendor oversight and progress mapping</li> </ul> </li> </ul>
<p>Spring 2027 (January to June)</p>	<ul style="list-style-type: none"> <li>Assess progress and impact</li> </ul>	<ul style="list-style-type: none"> <li>Update stakeholder groups on CCN processes and</li> </ul>	<ul style="list-style-type: none"> <li>Continue implementation of Phase III</li> </ul>		<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and</li> </ul>

Time Frame (Proposed)	CCN Steering and CCN Council	Communication	Descriptor/Course Development	Technology and Processing	CCCCO and Operations Team
<i>Action plan and timeline may need adjustments as details are further developed.</i>		progress			<ul style="list-style-type: none"> <li>assess progress</li> <li>Continue vendor oversight and progress mapping</li> <li>Transition to sustainable model</li> </ul>
<b>Fall 2027 (July to December)</b>  <i>Action plan and timeline may need adjustments as details are further developed.</i>	<ul style="list-style-type: none"> <li>Continue collaborative work with CCC, UC, CSU, and AICCU systems to enhance current practice to best support students.</li> <li>Develop annual update and progress report</li> </ul>		<ul style="list-style-type: none"> <li>Complete Phase III: enrollment ready</li> <li>Develop process for sustainability of descriptors (review process, cycles, etc.)</li> </ul>		<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> </ul>
<b>Post-Cohort 1 Cycle 2027+</b>  <i>Action plan and timeline may need adjustments as details are further developed.</i>	<ul style="list-style-type: none"> <li>Assess progress and impact</li> <li>Continue collaborative work with CCC, UC, CSU, and AICCU systems to enhance current practice to best support students.</li> <li>Develop annual update and progress report</li> </ul>		<ul style="list-style-type: none"> <li>Transition to sustainability plan and begin discipline review cycles</li> </ul>		<ul style="list-style-type: none"> <li>Continue data collection and analysis to inform decisions and assess progress</li> <li>Continue vendor oversight and progress mapping</li> </ul>



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## 1676 **Appendix II: Allocation of CCN Funding**

1677

1678 As a result of the Budget Act of 2021, a \$10 million one-time budget was designated for CCCCCO to  
1679 establish a work group, known as the CCN Task Force.

1680

1681 In January 2022, \$105 million one-time funds were designated for the CCN implementation in  
1682 the 2022-2023 budget year in AB 183 (2022): Higher Education Trailer Bill

1683

1684 From AB 183 (2022):

1685 SEC. 56.

1686 (a) For the 2022–23 fiscal year, the sum of one hundred five million dollars (\$105,000,000) is  
1687 hereby appropriated from the General Fund to the Board of Governors of the California  
1688 Community Colleges for allocation to community college districts to assist with the adoption of,  
1689 and transition to, a common course numbering system pursuant to Section 66725.5 of the  
1690 Education Code.

1691

1692 (b) Funds allocated pursuant to subdivision (a) may be used for, but are not limited to, all of the  
1693 following purposes:

- 1694 (1) Aligning existing course curricula to a common course numbering system.  
1695 (2) Updating course catalogs and other digital course registries.  
1696 (3) Supporting faculty costs associated with course differentiation and curriculum  
1697 approval.  
1698 (4) Campus communication efforts to inform students of revised course numbers and  
1699 curricula.

## 1700 Appendix III: Transferable GE Course Enrollments for initial course-level data.

1701

### 1702 Research Question

- 1703 • What are the most popular CSU/UC transferable General Education (GE)  
1704 courses based on enrollment?

1705 • Goal: Use the info to focus initial common course numbering (CCN) efforts.

- 1706 • The research team analyzed course enrollments for Intersegmental  
1707 General Education Transfer Curriculum (IGETC) and CSU GE Breadth  
1708 courses over the past 3 years (AY 2020-2021, 2021-2022, 2022-2023).

1709 • We used the Course Identification Numbering System (C-ID) codes to identify  
1710 similar courses at different colleges.

- 1711 • Preliminary considerations for merging data sources for CCN

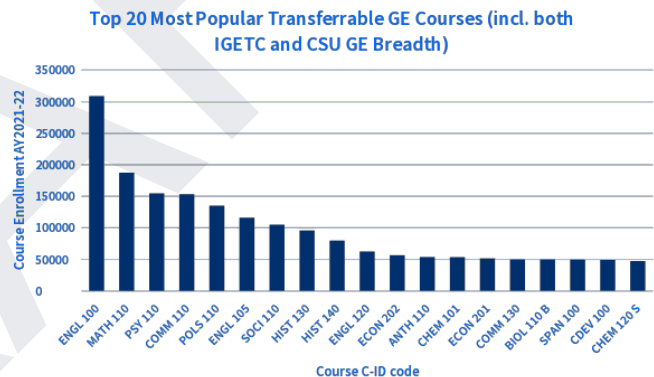
1712

### 1713 Results Overview

- 1714 • Top 20 most popular transferrable  
1715 GE courses (incl. both IGETC and  
1716 CSU GE Breadth courses) based on  
1717 enrollment in AY2021-2022 are  
1718 shown in the figure.

- 1719 • Results are similar for AY2020-2021  
1720 and AY2022- 2023.

1721



### 1722 Data Sources

- 1723 • Articulation System Stimulating Interinstitutional Student Transfer  
1724 (ASSIST): Identify transferrable GE courses (IGETC, CSU GE Breadth)

1725 • Area codes for IGETC and/or CSU-GE/Breadth Certification applicability

- 1726 • Chancellor's Office Management Information System (COMIS): Count  
1727 course enrollments

1728 • Taxonomy of Programs (TOP) codes

- 1729 • Chancellor's Office Curriculum Inventory System (COCI): Join the ASSIST  
1730 and the COMIS data

1731 • ASSIST - College, Dept Name, Dept Number, Min Units, Max Units

1732 • COMIS - Control Number

- 1733 • C-ID: Identify similar courses at different colleges

1734 • College, Dept Name, Dept Number, C-ID #, Descriptor

## 1735 Analysis Methodology

- 1736 • Created a course identifier for the analysis:
  - 1737 • For courses matched with C-ID, we used *C-ID number* as the identifier;
  - 1738 • For courses unmatched with C-ID, we treated the course as distinct in the
  - 1739 system and used *college code + course control number* as the identifier.
- 1740 • Counted course enrollments by college and term, and then added up the
- 1741 counts across terms for an academic year and across colleges for a same
- 1742 course identifier.
- 1743 • Results also include TOP codes, GE area codes (IGETC codes &
- 1744 CSU-GE-Certification codes), ASSIST data sources (IGETC and/or CSU
- 1745 GE Breadth) for each course identifier.
  - 1746 • A course identifier can be associated with multiple TOP codes, GE area codes,
  - 1747 and ASSIST data sources.

## 1749 Results

1750 Top 20 most popular transferable GE courses by enrollment over the past 3 years

1751

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
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

Course Identifier	Descriptor	Enrollment, AY2020-21	Enrollment, AY2021-22	Enrollment, AY2022-23
CHEM 120 S	General Chemistry for Science Majors Sequence A	54917	47340	44474

1752

## 1753 Results

1754 TOP codes & GE area codes for the most popular transferable GE courses

1755

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
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

1756

1757

## 1758 Results

- 1759 • Most popular areas by frequency in 100 transferable GE courses with the  
1760 highest enrollment over the past 3 years are -
  - 1761 • By TOP codes: 22 – Social Sciences, 15 – Humanities, 20 – Psychology, 04 –  
1762 Biological Sciences, 19 – Physical Sciences.
  - 1763 • By IGETC codes: 4 – Social Sciences, 5C – Science Laboratory, 3B -  
1764 Humanities, 4G - Interdisciplinary, Social & Behavioral Sciences , 4J -  
1765 Sociology & Criminology
  - 1766 • By CSU-GE-Certification codes: D - Social Sciences, D7– Interdisciplinary  
1767 Social or Behavioral Science, E– Lifelong Understanding and  
1768 Self-Development , C2– Humanities {Literature, Philosophy, Languages Other  
1769 than English} , B3– Laboratory Activity

1770

## 1771 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	-

1772

## 1773 Data Challenges

- 1774 • Challenge 1: No consistent college identifier and course identifier between  
1775 the ASSIST and the COMIS data
- 1776 • Solution:
  - 1777 • Built a crosswalk for college codes between ASSIST and COMIS
  - 1778 • Joined ASSIST with COCI by *College, Dept Name, Dept Number,*  
1779 *Min Units, Max Units* to obtain *Control Number* (course identifier in  
1780 COMIS) for transferrable GE courses
    - 1781 • Cleaned up space, dash, and zeros between letters and numbers in Dept  
1782 Name & Dept Number to improve match rate – e.g. We could join  
1783 courses as “MATH 01” in one source and “MATH-1” in another source  
1784 with this clean-up.

- 1785 • Challenge 2: Without joining similar courses at different colleges,  
1786 system-wide results will be biased by college size.
- 1787 • Solution: Joined ASSIST with C-ID by College, Dept Name, *Dept Number*  
1788 to identify similar courses across colleges
- 1789 • Similarly, we built a college crosswalk between the two sources and applied  
1790 clean-ups to Dept Name & Dept Number for the match.

1791

## 1792 Caveats

- 1793 • Caveat 1: The match key (*College, Dept Name, Dept Number, Min Units,*  
1794 *Max Units*) is not an exact and unique course identifier.
- 1795 • Inconsistent Dept Name & Dept Number across sources:
- 1796 • Examples:
- 1797 • (1) Physical Geology at Sacramento City College is GEOL 302 in  
1798 ASSIST but GEOL302-3061 in COCI. Our methodology does not  
1799 match the two records.
- 1800 • (2) Principles of Healthful Living at Feather River College (HES  
1801 100) in ASSIST is not found in COCI.
- 1802 • Unable to examine enrollment for unmatched courses.
- 1803 • Courses share the same match key:
- 1804 • Example: Programming and Problem-Solving in MATLAB at Butte  
1805 College is ENGR 2 in ASSIST. While we match it with its COCI record, it  
1806 is also matched with a non-transferrable GE course, Engineering  
1807 Graphics, as it is ENGR-2 in COCI.
- 1808 • Results may be matched in enrollments for non-transferrable GE  
1809 courses.
- 1810 • Caveat 2: Not all the courses are in C-ID.
- 1811 • Examples:
- 1812 • (1) Magic, Witchcraft, and Religion (ANTH 13) at Butte College is not  
1813 found in the C-ID data.
- 1814 • (2) Elementary Spanish (SPAN 1) at Mt. San Antonio College is not  
1815 found in the C-ID data. Instead, Spanish for the Spanish Speaking  
1816 (SPAN 1S) is in the C-ID data as the articulated course for Elementary  
1817 Spanish at the college.
- 1818 • Unable to identify similar courses at different colleges that are not in  
1819 the C-ID program/data.

1820

1821

## 1822 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	-

1823

## 1824 Key Takeaways

- 1825 • Transferrable GE courses over the past 3 years are sorted by enrollment  
1826 with TOP codes and GE area codes attached for the CCN task force.
- 1827 • Courses with the highest enrollment over the past 3 years are: College  
1828 Composition (ENGL 100), Introduction to Statistics (MATH 110), Public  
1829 Speaking (COMM 110).
- 1830 • Results are noisy/incomplete due to challenges to join courses across  
1831 databases and across colleges.
- 1832 • To join courses across databases, we currently rely on an approximate string  
1833 matching based on college, dept name and dept number. The match key cannot  
1834 uniquely and exactly identify courses, causing course records unmatched /  
1835 noisily matched and information loss as a result.
- 1836 • To join similar courses across colleges to examine system-wide course-taking  
1837 patterns, we currently rely on matching with the C-ID data based on college,  
1838 dept name and dept number. We have the same fuzzy matching issue as  
1839 above, and cannot join courses if not in the C-ID program/data.

1840

## 1841 Appendix – TOP codes

- 1842 ○ 01 – Agriculture and Natural Resources
- 1843 ○ 02 – Architecture and Environmental Design
- 1844 ○ 03 – Environmental Sciences and Technologies
- 1845 ○ 04 – Biological Sciences
- 1846 ○ 05 – Business and Management
- 1847 ○ 06 – Media and Communications
- 1848 ○ 07 – Information Technology



- 1849 ○ 08 – Education
- 1850 ○ 09 – Engineering and Industrial Technologies
- 1851 ○ 10 – Fine and Applied Arts
- 1852 ○ 11 – Foreign Language
- 1853 ○ 12 – Health
- 1854 ○ 13 – Family and Consumer Sciences
- 1855 ○ 14 – Law
- 1856 ○ 15 – Humanities
- 1857 ○ 16 – Library Science
- 1858 ○ 17 – Mathematics
- 1859 ○ 18 – Military Studies
- 1860 ○ 19 – Physical Sciences
- 1861 ○ 20 – Psychology
- 1862 ○ 21 – Public and Protective Services
- 1863 ○ 22 – Social Sciences
- 1864 ○ 30 – Commercial Services
- 1865 ○ 49 – Interdisciplinary Studies
- 1866

## 1867 Appendix – GE area codes

### 1868 • IGETC-Code:

- 1869 ○ 1A – English Composition
- 1870 ○ 1B – Critical Thinking - English Composition
- 1871 ○ 1C – Oral Communication {CSU requirement only}
- 1872 ○ 2A – Math
- 1873 ○ 3A – Arts
- 1874 ○ 3B – Humanities
- 1875 ○ 4 – Social Sciences
- 1876 ○ 4A – Anthropology and Archaeology
- 1877 ○ 4B – Economics
- 1878 ○ 4C – Ethnic Studies
- 1879 ○ 4D – Gender Studies
- 1880 ○ 4E – Geography
- 1881 ○ 4F – History
- 1882 ○ 4G – Interdisciplinary, Social & Behavioral Sciences
- 1883 ○ 4H – Political Science, Government & Legal Institutions
- 1884 ○ 4I – Psychology
- 1885 ○ 4J – Sociology & Criminology
- 1886 ○ 5A – Physical Science
- 1887 ○ 5B – Biological Science
- 1888 ○ 5C – Science Laboratory
- 1889 ○ 6A – Language Other Than English
- 1890 ○ 7 – Ethnic Studies
- 1891 ○ 8A – Critical Thinking
- 1892 ○ 8B – English Composition
- 1893 ○ 8C – English Composition – 2nd Quarter
- 1894

- 1895 • CSU-GE-Certification-Code:
- 1896 ○ A1 – Oral Communication
  - 1897 ○ A2 – Written Communication
  - 1898 ○ A3 – Critical Thinking
  - 1899 ○ B1 – Physical Science
  - 1900 ○ B2 – Life Science
  - 1901 ○ B3 – Laboratory Activity
  - 1902 ○ B4 – Mathematics/Quantitative Reasoning
  - 1903 ○ C1 – Arts {Art, Dance, Music, Theater}
  - 1904 ○ C2 – Humanities {Literature, Philosophy, Languages Other than English}
  - 1905 ○ D – Social Sciences
  - 1906 ○ D0 – Sociology and Criminology
  - 1907 ○ D1 – Anthropology and Archeology
  - 1908 ○ D2 – Economics
  - 1909 ○ D3 – Ethnic Studies
  - 1910 ○ D4 – Gender Studies
  - 1911 ○ D5 – Geography
  - 1912 ○ D6 – History
  - 1913 ○ D7 – Interdisciplinary Social or Behavioral Science
  - 1914 ○ D8 – Political Science, Government and Legal Institutions
  - 1915 ○ D9 – Psychology
  - 1916 ○ E – Lifelong Understanding and Self-Development
  - 1917 ○ F – Ethnic Studies
  - 1918

## 1919 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	Dept Name	Dept Number	Course Title	TOP Code	GE Area - IGETC Code	GE Area - CSU GE Code
College of San Mateo	ENGL	100	Composition	150100	1A	A3

1920

## 1921 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
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

1922