

**ALTERNATIVE METHODS FOR THE AWARDING OF COLLEGE CREDIT:
CREDIT BY EXAMINATION FOR ARTICULATED HIGH SCHOOL COURSES**

ACADEMIC SENATE FOR CALIFORNIA COMMUNITY COLLEGES

Acknowledgements

As with all Academic Senate papers, this paper is the result of a collaborative process. Academic Senate papers typically begin with a committee or a group of authors that then submit their work to the Academic Senate Executive Committee for further refinement. The Academic Senate wishes to thank Kris Costa, the 2012-2013 Articulation Liaison for Statewide Career Pathways, for her extensive work on this document.

NOTE: This paper focuses in on just one aspect of credit by examination. The Academic Senate for California Community colleges recognizes the importance of all forms of credit by exam and will be addressing these in the future.

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I. Introduction and Background

Colleges have long had mechanisms for awarding students credit for prior learning, from evaluating transcripts to establishing standards for the units and course credit to be associated with designated scores on nationally and internationally recognized curricula and exams. While the processes for awarding credit via these traditional mechanisms are generally well-developed, other avenues to college credit may not benefit from the same level of standardization and may be in need of refinement locally. Most notably, the awarding of credit in career technical education (CTE) areas for articulated high school work, including courses in Regional Occupational Career Programs (ROCPs), is an area in need of improvement, as increases in the number of articulated high school courses have not yielded a corresponding increase in the awarding of credit. ROCPs provide high-quality career preparation classes and services to prepare youth 16 years of age and older as well as adults for successful careers in response to the needs of the local labor market. Local policies and practices may, in some cases, hinder the transcription of credit earned. Once an articulation agreement has been established, the awarding of credit requires a coordinated intersegmental effort that begins in a high school class and ends in a community college admissions and records office. The intervening steps must not be overly burdensome on the student and the process should not be unreasonably prolonged. Most importantly the process must ensure that the student has achieved the competencies that justify the awarding of credit

The Academic Senate's SB70 (2005) initiative, *Statewide Career Pathways: Facilitating School to College Articulation (SCP)*, has created a system that facilitates the establishment of articulation agreements between schools [high schools and Regional Occupational Centers and Programs (ROCPs)] and community colleges by convening CTE instructors from both segments to identify the common elements of courses that are commonly taught, leading to the development of templates for courses and simplifying the dialog among CTE instructors that is necessary to establish an articulation agreement. These course templates were jointly created by high school instructors and college faculty in each discipline via a statewide vetting process and establish the minimum standards for courses that are commonly taught at the secondary level for which college credit may be available. Course templates and the resulting articulation agreements based on them are available at statewidepathways.org, facilitating the portability of articulated CTE work.

Despite SCP's measurable progress in the form of over 100 templates and an ever-growing list of articulation agreements, informal surveys have indicated that few students are awarded credit for their articulated high school courses. The same situation also exists nationally, according to the Community College Research Center (Anderson, Alfonso, and Sun, 2006).

Title 5 regulations permit high school students to earn college credit that is notated on a college transcript credit through credit by exam mechanisms, with no residency requirement. Local policies can enable students to earn college credit for their high

school work at no cost or minimal cost to the student in a way that neither compromises the integrity of the college course nor disrupts the smooth transition of a student from high school to college. Such practices are effective in providing high school students college level coursework in a high school setting and provide faculty across segments an opportunity to collaborate to benefit students.

The Academic Senate's resolution process has established that faculty support the use of credit by exam processes where appropriate, are concerned about ensuring the integrity of such processes, and support the removal of "residency" requirements for articulated high school work.

Resolution 09.08 (Fall, 2010)

Credit by Exam Processes

Whereas, National and state interest in decreasing time to degree completion and increasing degree production has resulted in an interest in finding novel ways to meet these goals;

Whereas, The Academic Senate for California Community Colleges has been active in determining whether and how existing competency-based exams (e.g., College Level Examination Program, International Baccalaureate, Advanced Placement) can be translated into course credit; and

Whereas, "Credit by exam" is a mechanism long in existence that can be used to award credit for demonstrated learning;

Resolved, That the Academic Senate for California Community develop and disseminate information to local academic senates regarding effective practices for using credit by exam to recognize learning gained through alternative mechanisms;

Resolved, That the Academic Senate for California Community Colleges encourage local academic senates to ensure that students are aware of the existing mechanisms for earning credit through exam processes; and

Resolved, That the Academic Senate for California Community Colleges recommend that local academic senates consider the needs of their local communities and strive to ensure that all appropriate exam opportunities are available.

Resolution 09.05 (Fall, 2008)

Ensuring the Integrity of Credit by Exam Processes

Whereas, Title 5 55050 Credit by Examination establishes the following:

(a) The governing board of each community college district shall adopt and publish policies and procedures pertaining to credit by examination in accordance with the provisions of this section;

(b) The governing board may grant credit to any student who satisfactorily passes an examination approved or conducted by proper authorities of the college. Such credit may be granted only to a student who is registered at the college and in good standing and only for a course listed in the catalog of the community college; and

(c) The nature and content of the examination shall be determined solely by faculty in the discipline who normally teach the course for which credit is to be granted;

Whereas, Resolution 9.07 F07 encourages "credit faculty to consider developing credit by exam options for credit courses that have noncredit equivalents"; and

Whereas, Credit by examination processes must be developed and evaluated by the appropriate discipline faculty;

Resolved, That the Academic Senate for the California Community Colleges assert the right of discipline faculty to establish the content of credit by examination processes, including the use of exams administered at high schools and assessments based on portfolios; and

Resolved, That the Academic Senate for the California Community Colleges research and share effective practices for credit by exam processes with local senates.

Resolution 21.01 (Fall, 2007)

Residency Requirements that Delay Credit in Occupational Programs

Whereas, Many California community colleges delay granting credit for articulated occupational courses that students have taken while in high school until they have completed some minimum number of units at the community college, a practice sometimes referred to as "credit in escrow";

Whereas, National research suggests that the students who do not immediately receive the credit they earned while still in high school never end up taking advantage of the credit, so the intended benefits of this credit are lost; and

Whereas, Articulation agreements between secondary schools or Regional Occupational Centers and Programs and California community colleges that were forged under Tech Prep programs or under the Academic Senate's new "Statewide Career Pathways: Creating School to College Articulation" Project often include granting secondary students college credit, yet locally, the credit may not be awarded for one or more years;

Resolved, That the Academic Senate for California Community Colleges encourage local senates to eliminate the practice that delays the awarding of credit

to secondary students participating in legitimate articulation agreements or dual enrollment arrangements with the college.

In discussions focused on simplifying the process of awarding credit by exam for articulated work completed at the secondary level, a committee, composed of current Admissions and Records specialists, faculty, student services deans, and CTE Transitions Coordinators (formerly known as “Tech Prep Coordinators”), proposed that a paper delineating effective practices be developed in order to ensure the integrity of the credit by exam process and to provide guidance to colleges seeking to improve their existing processes for developing and implementing high school articulation agreements and the subsequent awarding of credit. A college’s policy on articulating high school coursework must provide a framework to develop processes for articulating high school courses, and its policy on credit by exam must facilitate the awarding of college credit for work completed in high school. Absent the latter, the promise of the former is not realized. Colleges statewide are encouraged to review the practices and guidance outlined in this paper and to develop an articulation and credit by exam protocol of their own.

The process of developing this paper also produced a collection of documents that can inform effective implementation practices at the local level. CTE practitioners offered forms, letters, “how-tos,” and fliers, all of which illustrate local practices. These documents are available at statewidepathways.org/resources.html and can be used to develop or modify existing practices.

II. Regulatory Requirements: What Is and What Is Not

In California, in order for a student to earn transcribed community college credit for work completed at a secondary school, Title 5 regulations require that the student complete a credit by exam process that confirms that he or she has achieved the objectives of the equivalent college course as defined by the community college faculty. A review of the regulations is necessary to understand the origins of current practices that interfere with the awarding of earned credit. The regulatory language that defines high school articulation and credit by examination can be found in Title 5, Division 6, Chapter 6, Subchapter 1, Article 5. Alternative Methods for Awarding Credit, §55050 – 55051:

§ 55050. Credit by Examination.

(a) The governing board of each community college district shall adopt and publish policies and procedures pertaining to credit by examination in accordance with the provisions of this section.

(b) The governing board may grant credit to any student who satisfactorily passes an examination approved or conducted by proper authorities of the college. Such credit may be granted only to a student who is registered at the college and in good standing and only for a course listed in the catalog of the community college.

(c) The nature and content of the examination shall be determined solely by faculty in the discipline who normally teach the course for which credit is to be granted in accordance with policies and procedures approved by the curriculum committee established pursuant to section 55002. The faculty shall determine that the examination adequately measures mastery of the course content as set forth in the outline of record. The faculty may accept an examination conducted at a location other than the community college for this purpose.

(d) A separate examination shall be conducted for each course for which credit is to be granted. Credit may be awarded for prior experience or prior learning only in terms of individually identified courses for which examinations are conducted pursuant to this section.

(e) The student's academic record shall be clearly annotated to reflect that credit was earned by examination.

(f) Grading shall be according to the regular grading system approved by the governing board pursuant to section 55023, except that students shall be offered a "pass-no pass" option if that option is ordinarily available for the course.

(g) Units for which credit is given pursuant to the provisions of this section shall not be counted in determining the 12 semester hours of credit in residence required for an associate degree.

(h) A district may charge a student a fee for administering an examination pursuant to this section, provided the fee does not exceed the enrollment fee which would be associated with enrollment in the course for which the student seeks credit by examination.

§ 55051. Articulation of High School Courses.

(a) For purposes of this section, the term "articulated high school course" means a high school course or courses that the faculty in the appropriate discipline, using policies and procedures approved by the curriculum committee established pursuant to section 55002, have determined to be comparable to a specific community college course.

(b) The governing board of a community college district may adopt policies to permit articulated high school courses to be applied to community college requirements in accordance with this section. Articulated high school courses may be accepted in lieu of comparable community college courses to partially satisfy:

(1) requirements for a certificate program, including the total number of units required for the certificate; or,

(2) The major or area of emphasis requirements in a degree program.

(c) Articulated high school courses used to partially satisfy certificate or major/area of emphasis requirements shall be clearly noted as such on the student's academic record. Notations of community college course credit shall be made only if community college courses are successfully completed or if credit is earned via credit by examination.

(d) Except through credit by examination, as defined in section 55753, high school courses may not be used to satisfy:

(1) The requirement of section 55063 that students complete at least 60 semester or 90 quarter units in order to receive an associate degree; or,

(2) Any general education requirement for the associate degree established by the district.

Some colleges impose a “residency” requirement upon incoming post-secondary students. Students are thus required to complete as many as 15 units at the college “in residence” before the earned credit can be notated on the transcript. The California Community Colleges Chancellor’s Office has stated that while a college may choose to implement such a “residency” requirement, nothing in Title 5 regulations requires it (L. Michalowski, personal communication, January 22, 2010).

Requiring residency for acquisition of articulated credit may stem from a debatable interpretation of Title 5 §55050b, which states, “The governing board may grant credit to any student who satisfactorily passes an examination approved or conducted by proper authorities of the college. Such credit may be granted only to a student who is registered at the college and in good standing...” Some colleges use this statement to justify the use of college course completion as a condition to be met prior to the transcription of credit and delay the awarding and subsequent transcription of credit until the student has completed some minimum number of units or specified courses at the college, impacting the portability of articulated high school work. In order to receive credit via credit by exam for articulated high school work, the student must be “registered” and “in good standing” at the college (Title 5 §55050). The terms “registered” and “in good standing” are ambiguous: “registered” could mean either that the student has completed an application for admission or that he or she is enrolled in courses, while the only definitions in regulation for “in good standing” relate to the criteria for *regaining* good standing and do not indicate clearly that a student is in good standing until that standing is lost. Local district policy should explicitly define these terms in order to facilitate the awarding of credit earned for work completed at a secondary school.

Title 5 §55051 creates two possible objectives for high school to college articulation. While the emphasis of this paper is on the awarding of credit for high school or ROCP work using credit by examination, Title 5 also allows colleges to waive local degree or certificate requirements based upon course work completed at a high school. This practice may be used to fulfill a prerequisite or to allow a student to waive a requirement involving an introductory or other major or area of emphasis course. It does not allow the

waiving of required units (such as the 18 units required in the major for the awarding of a degree and the 60 units needed to earn a degree) or general education requirements.

When credit by examination is employed to award credit for articulated secondary course work, the units earned can be applied towards the units needed to earn a certificate or degree and, if the course for which credit had been awarded is a transferable course, the course credit would transfer as the college course for which credit was awarded. While a college may use high school work to waive a college course requirement, §55050 prohibits the granting of college credit unless the student takes a college course, or is assessed through examination and found competent as defined in that course's course outline of record.

Everyone involved in the secondary course articulation process must be clear about these end-goal distinctions; while the actual process for establishing and implementing articulation may be the same, the outcome for students is significantly different. Such clarity is particularly important when one is informing students regarding the process, as misunderstandings could potentially impede their progress. For example, if an articulation agreement waives the college's local requirement for beginning Excel based on an Excel course taught at the high school, then the student is deemed to have met the prerequisite for intermediate Excel as well as having waived the beginning Excel as a course needed for their certificate or degree, but he or she does not have college credit for such a course. If the student then transfers to a university and college credit for the beginning Excel is required, they will be lacking this coursework unless they earned college credit via the credit by exam process.

Although credit by examination does take place outside of the high school to college context, such an application of the concept is beyond the scope of this paper. Local processes for implementing credit by examination protocols, be they for articulated courses or otherwise, may greatly overlap. To prevent confusion, colleges should consider implementing local policies that discuss each type of credit by examination as a singular process.

III. Roles And Responsibilities

A. Academic Senate Responsibilities: Oversight and Policy Development

Title 5 § 53200 (b) grants the academic senate the responsibility for recommendations regarding curriculum development, grading policies, and education program development. Credit by exam and high school course articulation therefore fall under the purview of the academic senate. However, the senate role in this context is primarily one of oversight and policy development. Decisions regarding articulation and credit by exam are most properly made by articulation experts and by faculty in the relevant disciplines working with their high school colleagues and approved as necessary by the local curriculum committee. The academic senate should ensure that all processes are followed and that the voices and expertise of discipline faculty and curriculum committee are respected, but as long as all agreements and decisions are reached through appropriate

consultation and processes, the senate will generally have no reason to become involved with the decisions themselves.

B. Faculty Responsibilities: Curriculum and Assessment

Central to the intent of Title 5 regulations on articulation of high school courses and credit by exam is the faculty's purview of ensuring quality instruction through the development of integrated course outlines of record and the end of course assessment that will be the basis for awarding credit. Faculty must therefore take a leading role in developing appropriate processes and instruments in these areas.

CTE faculty and others teaching articulated courses across segments should, ideally, meet at least once every two years to ensure that articulated courses are similar in content and rigor and that exams offer accurate measure of the explicit outcomes delineated in the course outline of record.

Central to the discussion among intersegmental faculty is the assessment tool or credit by exam mechanism used to determine the accomplishment of the objectives delineated in the course outline of record. College faculty determine what is included in the assessment and may either be the authors of the exam or may work with their high school counterparts to develop assessments that both meet the rigor required to be the basis for granting college credit and serve a purpose in the context of the high school course. Regardless, college faculty alone are the authority for the assessment.

While college faculty are responsible for determining the end of course assessment tool to be used, the assessment process is likely to be facilitated by CTE transitions staff or other CTE personnel when the articulated high school work is in CTE areas. While the exam is the purview of college faculty it is best developed in consultation with high school faculty, as is the location and administering of the exam. Exams may be administered in numerous ways: the college may host high school students on its site to administer an exam, hire a test proctor to visit schools, or visit schools to administer the exam. Additionally, college faculty may opt to use the final exam administered at the high school as the credit by exam mechanism.

While all forms of articulation serve to benefit students and facilitate student movement between institutions, federal requirements attach funding to the establishment of articulation agreements between secondary and postsecondary institutions in CTE areas. As a consequence, accessing these funds is dependent upon the establishment of the required articulation agreements by faculty. The Carl D. Perkins Act (2008) language provides the guidelines for administering "programs of study" that include articulation of high school courses:

As mandated by Section 122(c)(1)(A) of Perkins IV, each Local Education Agency (LEA) receiving Section 131 or 132 funds must provide at least one program of study that incorporates secondary and postsecondary elements; includes coherent and rigorous content aligned with challenging academic standards and relevant CTE in a coordinated, non-duplicative

progression of courses that align secondary education with postsecondary education to adequately prepare students to succeed in postsecondary education; and leads to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree. In addition, programs of study must also satisfy the organization and operation requirements specified in policies 2, 3, and 4. Programs of study developed by districts receiving Section 131 funds must include not less than one district-funded course (<http://www.cde.ca.gov/ci/ct/pk/>)

The Perkins Act defines a program of study as a planned sequence of articulated courses in a recognized CTE industry sector. The sequence must include both secondary and postsecondary elements and must be aligned with the California Career Technical Education Model Curriculum Standards, CTE Framework and academic content standards (<http://www.cde.ca.gov/ci/ct/pk/>). Establishment of articulated CTE pathways between schools and community colleges is necessary to ensure the availability of Perkins Act funding: colleges statewide rely on this funding source for occupationally-relevant equipment, vocational curriculum materials, materials for learning labs, curriculum development or modification, staff development, career counseling and guidance activities, efforts for academic-vocational integration, supplemental services for special populations, hiring vocational staff, basic skills classes, and expansion of tech prep programs.

Ideally, community college faculty work in collaboration with the high school teachers who teach potentially articulated courses to establish articulation agreements and then establish an ongoing conversation regarding student success in the program of study. To foster this relationship, many districts have formed consortia for the purpose of engaging in conversations, activities, and collaborative work related to Perkins-aligned Programs of Study. These consortia often host regular meetings and events to bring together faculty across segments. Some consortia have developed a schedule for hosting articulation meetings for a specific program of study or discipline.

In summary, the responsibilities of community college faculty regarding articulation of high school courses and credit by exam include:

- Regularly revisiting the curriculum and articulation agreements with high school teachers to ensure consistency, relevance, and details of the pathway for students.
- Establishing and maintaining the assessment to be used for the awarding of credit by exam, including how the assessment will be administered.
- As needed, working with high school and community college counselors, administrators, CTE Transitions Coordinators, or others involved in communicating the articulation agreement and the credit by exam process for students in the given pathway; in general, increasing communication with all stakeholders and those who will be responsible for communicating with students on the college campus.

C. CTE Transitions Coordinator Responsibilities: Facilitation

The title held by a college's principle coordinator of articulation with schools (high schools and ROCPs) has changed over time: yesterday's "Tech Prep Coordinator" is today's "CTE Transitions Coordinator." Regardless of the title, this individual facilitates the establishment of articulation between schools and colleges in CTE areas. While this responsibility may be assumed by an articulation officer, the articulation in question differs from that normally overseen by an articulation officer in that the community college is the receiving institution and credit (if granted) can only be awarded upon completion of some form of credit by exam. Thus, the work of the CTE Transitions Coordinator typically involves facilitating the establishment of articulation, the maintenance of articulation, and the credit by exam process. Due to a lack of dedicated funding, many colleges may not have a CTE Transitions Coordinator and may assign these duties to an employee who has other primary responsibilities. Local policies and practices should be designed to ensure that students can readily obtain the help and information they need regarding credit by exam. All relevant parties, including counseling faculty, Admissions and Records staff, and CTE faculty, should be prepared to properly direct students to the information they need.

CTE Transitions Coordinators typically maintain records of articulation relationships as documented by the agreement as well as the articulation data (i.e. articulating students names, identifying information, course name, credits earned, etc.) through high school articulation agreements. Their charge is to provide the information to faculty across segments, facilitate the relationships for agreements to occur, and keep students aware and informed of the opportunities available to them. Additionally, CTE Transitions Coordinators must communicate with counseling faculty, who will ultimately advise the students who have earned credit via exam and subsequently help them enroll in college courses.

Whether or not a college has a dedicated CTE Transitions Coordinator, certain critical functions must be maintained if a college is to award credit by exam for articulated courses completed at a high school or ROCP. The individual or office that will handle these functions must be identified, advertised, and known by the campus community. The tasks necessary for ensuring that articulated credit is awarded involve facilitation across all aspects of the process: maintaining contact with all faculty regarding agreements in process, confirming the faculty role in the credit by exam process, and conducting regular review of all processes and agreements. Articulation agreements must be communicated and readily available to counseling staff at the high school and college and to parents, students, and instructors across segments via the college website, the catalog, or other mechanisms to ensure their usage and efficacy.

The duties of the CTE Transitions Coordinator include:

- Maintaining all records of articulation agreements between high schools and the college, students participating in the pathway, and the results of the credit by exam process for each course and pathway.
- Providing communication and information to faculty of both segments including data on student success,

- Seeking to solve problems realized from either segment, parents, faculty, or students.

D. Student Responsibilities: Opt-in and Follow Through

In order to obtain college credit for articulated high school work, a student must complete the high school or ROCP course, engage in the established assessment, and navigate a system for which guidance is needed. The student assumes a level of responsibility when he or she chooses to pursue articulated credit. That responsibility includes educating himself or herself on the key points of the credit by exam process from the student's perspective. Such knowledge is particularly important in the absence of a CTE Transitions Coordinator, who would otherwise be communicating this information to the high school teachers and students.

Students must be aware of the opportunity to earn college credit (versus waiving local requirements) and what doing so may mean for their course of study. The number of units that students may acquire via credit by exam, per the approved policy of each college, may be limited, and students should be aware of any potential to exceed such limits. Students also may have the option of Pass/No Pass grading for a class for which credit by exam is to be received if that option is available to students who take the course at the college. However, the University of California System will allow no more than 14 units to transfer as Pass/No Pass. Additionally, some colleges require a letter grade for major courses and lower division pre-requisites. Students should not opt for a Pass/No Pass grading option without due consideration of the potential impact. Finally, for the California State University System, EO 1036 addresses the issue of credit by exam limits for transfer admission: "Except for International Baccalaureate and Advanced Placement Tests, no more than 30 semester (45 quarter) units of credit shall be applied to the calculation of admission eligibility nor to the baccalaureate degree on the basis of passing externally developed tests. Advanced Placement and International Baccalaureate are excluded from this limit." Students must understand these various limitations and options in order to make appropriate decisions regarding any application for credit by exam.

Some colleges employ an "opt-in" method for identifying students who wish to pursue articulated credit by exam. Students must understand that the course has been articulated for college credit and that if they choose to take the college-determined assessment, they can receive a grade on their college transcript that, if passed, shows their mastery of the college's course outline of record for the comparable course. Local policies must delineate the consequence, if any, of not successfully passing an exam designed for the awarding of credit. Students must also understand the process to follow in order to claim their earned credit, including the timeline for completion, if one exists. Clear delineation should be given however, to clarify the difference between the high school and college grade.

Students who have opted in for college credit by examination have also opted in for the follow-through of the process. Once students have completed the assessment, for example, colleges may collect student grades and, in some cases, send the student a

certificate with a letter detailing their next steps. Students that have opted in for college credit must be aware of the processes to follow and be included in the communication regarding the next steps. Specific examples are available on the resource site, statewidepathways.org.

Student responsibilities include:

- While in high school, obtaining all the information available from the high school about the pathway, courses required while in high school as well as courses and program requirements at the community college.
- To the best of his or her ability, completing the high school courses with high grades in order to be on track to earn college credit through credit by exam.
- Understanding what is required to "opt-in" to the credit by exam process; knowing the timelines, expected content to master, features or special requirements of the assessments for each course where college credit may be obtained.
- Keeping copies of required forms, assessment scores, and other documentation to help facilitate all the benefits earned through the credit by exam process.
- Meeting with a community college counselor prior to enrolling in college classes to ensure that requirements, earned credit, prerequisites, and limits on credit by exam are understood and recorded.

IV. Best Practices And Critical Components

A. Effective Articulation Agreements

The first critical component of effective articulation is a comprehensive district policy regarding articulation of high school courses. This policy should be established through a multi-step process that is likely to begin with CTE faculty but also is reviewed by others prior to final approval and adoption by a district's board. The articulation officer, counseling faculty, discipline faculty, Admissions and Records staff members, and ideally, the chief instructional officer can each review the policy from a unique perspective and provide a viewpoint based upon the effects the policy will have on his or her role in the process. Statewide initiatives will continue to influence local policies and practices, so as a college develops a local policy, the language should ensure that the policy is a living document, with flexibility such that the subsequent procedures can be fluid and responsive. Sample local policies are available at: statewidepathways.org/resources.html.

Once a policy is adopted, colleges may develop a procedures manual which outlines in detail all of the specifics of articulation, including the process, the requirements, and responsibilities. This manual can be given to high school teachers and college faculty and should be readily available electronically.

When a district policy is in place, the next step to effective articulation is identifying the partners. Because the process should be faculty-driven, both teachers at the high school or ROCP and college faculty must be included. In convening such intersegmental faculty groups, colleges should not confuse credit by exam with the requirements for concurrent or dual enrollment. Dually and concurrently enrolled students are enrolled in and attend the college course, while students who earn credit by exam are receiving college credit for learning that occurred in a high school course. Therefore, high school teachers who participate in these articulation discussions are not subject to the Board of Governors minimum qualifications in their articulated area, as these courses are not college courses. Furthermore, high school instructors are not agents of the college when they teach a high school course that has been articulated.

Relationships between segments are critical to the integrity, quality, and usefulness of articulation agreements and programs of study. Effective practices assure that the high school teacher is well-informed of the expectations of the college faculty and facilitate open and regular communication. Often, this connection is facilitated by the CTE dean or his or her designee. The communication between instructors at each institution is necessary to ensure that the appropriate end of course assessment is used to determine mastery of the course outline of record and to clarify any questions or issues that may arise with respect to the administration of the examination.

Though the conversation occurs between faculty, a CTE Transitions Coordinator or some other individual with articulation expertise can be beneficial to the process. Whoever is facilitating the CTE transitions relationships should also ensure that all relevant Title 5 regulations are adhered to. This person should be responsible for drafting the agreement and ensuring that all parties have a copy and understand the expectations. Official signatures indicating approval by CTE staff, faculty, administration, and others involved must be included. The written agreement should also include course content, hours, course titles, and course descriptions.

Details regarding the end of course assessment for credit by examination must be stated in the articulation agreement, as this document is the contract to which all stakeholders have agreed. Such details should include minimum course grade needed to be eligible for credit (if desired), how the exam will be administered, what will be covered, and expectations for students' work. For college faculty, credit by exam is the mechanism that ensures that high school students have mastered the competencies that justify the awarding of college credit on the transcript for their high school work and are prepared for more advanced work. For high school teachers, the exam is the indicator of a high school student's ability to be effective at the college level. In addition, not all high school students in an articulated class may earn credit; credit is awarded to students performing at college level as demonstrated through the credit by exam process. A clearly written agreement regarding the content, process, and expectations for the exam will help to prevent confusion later and to provide clarity for teachers who are explaining the opportunities to their high school students.

Agreement review cycles should be listed on the articulation agreement to ensure the integrity of the process. Changes in curriculum and staffing influence articulation and should be reviewed at least every two years. In the best of worlds, CTE articulation agreements are not completely person-dependent, and do not strictly rely on relationships established between high school instructors and community college faculty. Processes should be in place to ensure continuity as personnel, curriculum, and programs change.

Many colleges hold annual articulation meetings or events to discuss the details of each articulation agreement. Such discussions often focus on the specifics of the end of course assessment. Time might also be spent developing a study guide for high school students to use in preparation for the exam.

Larger community college districts may participate in articulation as a district, with each college choosing to apply the agreement or not. Such agreements are made in the name of the district, and the faculty who teach the course may or may not choose to participate in the agreement with high school teachers. Local practices regarding district alignment of curriculum may call for internal district conversations prior to the adoption of articulation agreements.

Statewide Career Pathways has an extensive list of templates that may guide the articulation discussion. More than 100 templates have been developed since 2006. These articulation templates represent CTE courses that are typically offered at high schools or ROCPs and community colleges and that are typically articulated. Written by discipline work groups comprised of faculty from both segments and informed by input from the broader discipline field, the templates provide a general overview of the content and structure of classes offered throughout the state. Should a template be used as a basis for an agreement, that alignment should be noted on the agreement. Identifying the course in question as one that is aligned with an existing SCP template is intended to facilitate the portability of credit earned; students who took a course articulated by one college and aligned with an SCP template may be eligible to earn credit at another college that also articulates courses aligned with the SCP template.

B. Effective Credit By Exam Processes

A high school transcript does not suffice for the awarding of community college credit for articulated work. Earning college credit is dependent upon a credit by exam mechanism, which may or may not relate to the student's grade in his or her high school course. Students may earn college credit for their performance on the credit by examination assessment regardless of their high school course grades unless a minimum course grade has been established as a condition of receiving credit.

After articulation has been established, colleges determine the specific processes by which credit is earned, granted, and applied to the transcript. In addition, colleges must also consider how students are made aware of credit opportunities at the secondary school and how the college will be alerted to a student who has taken an articulated high school course. Some colleges have added a question to their application for admission

that identifies a student as an individual who has taken an articulated course in high school and has opted in for college credit. This question generates a list for automatic emails and correspondence regarding the process for receiving credit for articulated work.

At some colleges, the process of ensuring that students receive college credit for articulated high school work begins once an articulation agreement exists and a student begins the articulated high school course. A college representative then visits each school and provides students the information regarding the process for opting-in for college credit, including some pertinent information about CTE majors on the college campus. This representative also adds students who opt-in or indicate that they will pursue credit to the college's articulation database, establishing that the student may be awarded credit by examination and should be tracked by whatever mechanisms the college has in place for doing so. In late spring, the high school teachers are emailed a list of students for review. High school teachers review the list of students and determine that the list is accurate – i.e. that the list reflects the students whom are opting in, that the students are still enrolled in the class, and that the spelling and information is recorded accurately. At the end of the term, grades are earned, recorded, and provided to the designated office or individual at the college. If the end of course assessment has been administered at the secondary institution, this information is communicated to the college. Once this information is received, the responsible college personnel or office verifies the information by reviewing the details of each students record for accuracy. At this point the college personnel may also prepare a list of students earning credit based upon the exam scores, and provide it to Admissions and Records staff to include the credit onto the college transcript.

When utilizing an articulation database system, such as CATEMA (Career and Technical Education Management Application), the information is acquired through the secure database. The assessment administrator (proctor, high school teacher, or college faculty) enters the student's end of course assessment score into the online database. If a student's score is sufficient, any minimum grade requirement has been met, the college does not require any form of residency, and the student has completed an application for admission to the college and has been given a college student identification number, then the Admissions and Records staff may enter the credit earned onto the college transcript. As is often the case, procedural details need to be in place to create a smooth process with as few hurdles and barriers as possible. The receiving college needs to recognize when an incoming student is eligible for articulated requirement waivers or credit by exam as they are transitioning into the college. This may require annual visits to the high schools by college personnel to have eligible students complete an application for admission to the college and begin the process for assuring articulation waivers and credit are correctly awarded to the students. Internet based registration and data systems in common use today by colleges and high schools can facilitate these processes, and in all cases these processes need to be developed with the guidance of the college's Admissions and Records personnel.

Articulated course listings should be posted via the web, a course catalog, or other print media through the articulation and/or CTE transitions offices. Information regarding the

opportunity for college credit should accompany an updated list of courses that are currently articulated.

A possible method to facilitate the process of ensuring that students receive credit for articulated high school work is ensuring that students complete a college admission application at the commencement of the articulated course. The high school could guide the student through completing the application or a college representative could visit the school and not only assist the student in completing the application, but provide additional information about the college. At the completion of the articulated course, after the exam has been administered and all requirements have been met as stipulated in the articulation agreement, the CTE Transitions office, or the equivalent, could verify successful completion of the exam, and work with an Admissions and Records specialist to enter credits onto the college transcript.

Articulated credit data (i.e., students who have completed articulated courses, high school grades, and assessment performance) can be collected via numerous means; however, two are most prevalent:

- Online database systems are available, such as CATEMA (Career and Technical Education Management Application), which can collect the data via secure networks and create reports for use in the Admissions and Records office. Likewise, software packages or patches may be used to integrate articulated credit data from the online database into student data systems at the receiving college, such as Banner, DataTel, or PeopleSoft, or with existing online course modules such as Blackboard.
- Hand-written reports created through conversations and communication with high school teachers are also an effective way to gather the information needed to determine which students are eligible for credit; however, it is more labor intensive and comes with differing but parallel needs for record security and protecting student privacy.

A combination of methods can be used to benefit from the secure data feature of the online database and the hand-written entries of the reporting method.

While some districts are adapting existing data management systems to better facilitate the transition of records from high schools to colleges, developing interconnectivity among data systems is no small task due to the hundreds of high school and college districts in California. This issue is well-recognized across all segments of education, and a number of efforts are underway to create state recognized connection points. The Course Identification Numbering system (C-ID; www.c-id.net) and the Statewide Career Pathways processes are examples. Also needed are means to uniquely identify the students as they transition both vertically and laterally within California institutions and on into the workforce, and such means are being studied and considered by numerous state agencies.

Limits on the number of units a student may earn via credit by exam will vary by college. Likewise, campuses have restrictions as to the number of units earned toward the attainment of a degree or certificate which may be earned by examination. This information may also be included in an articulation policy.

Local policies and practices regarding credit by exam for articulated high school classes must address all of the following questions:

- Who drafts articulation agreements, where are they housed, and who is responsible for updating them?
- Where is information regarding the credit by exam process maintained and who is responsible for maintaining this information?
- How are students informed of the established credit by exam opportunity?
- How do students indicate their desire to be awarded credit?
- Who drafts the credit by exam assessment and how is it administered?
- What is the college's role in granting credit?
- What is the student's role in earning credit?
- When and how will credit earned be notated on the transcript?
- Are there specific timelines within which credit must be claimed?
- How and when will agreements be reviewed?
- What limits exist on the number of units that may be awarded via credit by exam?

V. Summary of Effective Practices

In an effort to inform secondary to postsecondary transition activities occurring on community college campuses statewide, the Academic Senate for California Community Colleges has developed the following summary of effective practices. This summary provides a step-by-step guide to developing effective credit by examination protocols for awarding college credit based for articulated high school courses.

1. Colleges adopt articulation policies that allow for courses taught at high schools and ROCs to be articulated for both the waiver of college course requirements and for college credit to be earned by exam.
2. Colleges adopt policies regarding credit by examination for articulated high school courses that permit the awarding of credit without a residency requirement. The credit earned must be noted on the transcript as being earned "by examination." Local discussions should establish what limits, if any, to place on the units a student may be awarded for credit by exam for both articulated high school courses and in general.
3. Once appropriate policies have been adopted, procedures and practices may be put into effect. These practices should be published in a medium that allows all involved educators to have clarity. Colleges should develop print media that explain the practices, in detail. Flowcharts and handbooks are effective documents to serve this purpose.
4. Articulation agreements created following the approved practices and policies of the

college should include details of the course content as well as the expectation for the credit by examination assessment, as determined by the college faculty. If a minimum grade in the articulate course is required to be eligible for the awarding of credit, this requirement should be indicated.

5. Students enrolled in articulated courses must be informed of the opportunity for college credit and provided an opportunity to "opt-in" for credit. Effective practices ~~to do so~~ may include a visit to classrooms by a college representative and student completion of a credit by examination enrollment form.

6. Students who have opted-in for college credit apply to the college in order to be admitted and obtain a college identification number. At this point, students are considered registered with the college and can begin their academic record. Absent the completion of an application the secondary student does not formally exist in the college's database and can not be awarded credit.

7. Students are then entered into a data repository at the college to store their information until the credit can be awarded. The creation of a database of students who potentially will earn credit by exam for articulated high school provides a means of tracking such students and enables the college to proactively assist them if resources are available to do so.

8. The High school/ROCP teacher, college faculty, or test proctor provides agreed-upon testing and/or assessments and completes certification for those students who meet all conditions of the articulation agreement. The certification may include completion of a form for submission to Admissions and Records or entering the assessment grade into the online student data repository.

9. Designated college staff facilitate the end of course assessment process (i.e., the credit by exam mechanism) in collaboration with secondary teachers and college faculty and ensures that grades are entered and recorded properly at the college.

10. Designated college staff provides the information to the Admissions and Records office for inclusion on the students' college transcripts. Credit is noted on the transcript as being earned "by examination."

VI. Recommendations

In an effort to support secondary to postsecondary transition activities occurring on community college campuses statewide, the Academic Senate for California Community Colleges has developed the following recommendations:

- Local senates should develop a high school articulation and credit by exam policy that is consistent with current language in Title 5; further, that policy should facilitate the awarding of credit and not impose unnecessary barriers.
- Community college personnel who are assigned to facilitate articulation relationships should work with their high school counterparts to communicate the

details of the process by which credit by exam is awarded and provide them an opportunity to opt-in or out.

- Community college articulation policies and practices should not require residency prior to the awarding of credit for articulated high school work.
- Because articulation and credit by exam processes are complex and ever-evolving and college personnel are constantly turning over, ongoing professional development of college and high school personnel is necessary to ensure the success of these efforts. Colleges should support local and regional activities that both inform participants and provide opportunities for them to build these pathways.
- In order to ensure that credit is awarded for articulated high school work when warranted, every college should have a designated individual or individuals who facilitates both the establishment of articulation and the credit by exam process.

VII. Resources

A. References

Anderson, Alfonso and Sun. Effectiveness of Statewide Articulation Agreements on the Probability of Transfer: A Preliminary Policy Analysis. *Review of Higher Education*, vol. 29 2006. pp. 261-291. 2006

California Department of Education. Instructions and guidelines for the development of the 2008-2012 Career Technical Education (CTE) Local Plan.
<http://www.cde.ca.gov/ci/ct/pk/>

US Department of Education. Office of Career Technical Education, Perkins Act Education. <http://www2.ed.gov/offices/OVAE/CTE/perkins.html>

Dear Colleagues,

As many of you are aware, implementation of SB 70 has resulted in a great deal of work between the Chancellor's Office and the California Department of Education to promote Career Technical Education pathways for California students. The Academic Senate for California Community Colleges has been involved in significant efforts to articulate secondary and community college CTE courses, with the result that many high school and ROP students are completing coursework that enables them to earn Credit by Exam for articulated community college courses.

In order to apply for Credit by Exam, current regulations require that a student be "enrolled in good standing" at the institution. Some community colleges have interpreted this to mean that a student must complete 12 units at the community college in order to be determined to be "in good standing." While there is currently nothing to preclude a college from adopting that policy, I want to clarify that there is nothing in current law or regulations that requires it. A student who enrolls at the college can be considered "in good standing" until the student's actions or performance result in loss of "good standing" status. There is no requirement in Title 5 that local policies require any units to be completed before the awarding of "credit by exam."

The Academic Senate for California Community Colleges has held discussions with CACCRAO representatives as well as CTE administrators from colleges and the Chancellor's Office to explore ways to improve the transition of secondary CTE students into community college programs. These discussions will resume and further refinements in this area, including possible regulatory changes, may be proposed. You will be further advised and consulted as these discussions move forward.

Feel free to contact me if you have questions.

Linda

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Web Resource Links

Sample Documents for Articulation

Summary: These documents demonstrate the varying policies, practices and protocols that districts use to institute articulation locally..

Link: statewidepathways.org/resources.html

Articulation Templates

These articulation templates represent CTE (career technical education) courses typically offered at high schools/ROCPs and community colleges. Written by Discipline Work Groups comprised of faculty from high schools, ROCPs, and community colleges, with input from the broader discipline field, the templates provide a general overview of the content and structure of such classes offered throughout the state.

Link: <http://statewidepathways.org/showtemplates.php>

Useful Articulation Publications

These documents have been created and posted in an effort to support the activities of local articulation and CTE transitions staff statewide and can be used as a resource for CTE transitions staff.

Link: www.statewidepathways.org/publications

Community College Research Center (CCRC)

The CCRC is the leading independent authority on the nation's nearly 1,200 two-year colleges. Since its inception, CCRC's consortium of researchers has strategically assessed the problems and performances of community colleges.

Link: ccrc.tc.columbia.edu

Perkins

The Carl Perkins Federal act was established to improve career-technical education programs, integrate academic and career-technical instruction, serve special populations, and meet gender equity needs and is the regulatory language for CTE programs.

Link: <http://www.cde.ca.gov/ci/ct/pk/>

CATEMA

This web application is designed to provide a simple method to enter, update, display and report course articulation outcomes and Career and Technology Education related information.

Link: www.catema.net or www.statcodb.com

Chaffey College Tech Prep

The Chaffey College Tech Prep program is designed to help create pathways that lead to an associate or baccalaureate degree or a post-secondary certificate in a specific career field. Students combine high school and ROP CTE classes, real-world experience, and/or college classes, to form a balanced and practical educational experience.

Link: www.chaffey.edu/tech_prep

Title 5 Web Search

This link is provided as an efficient way to search for Title 5 regulatory language, via a search for specific regulatory section.

Link: government.westlaw.com/linkedslice/default.asp?RS=GVT1.0&VR=2.0&SP=CCR-1000&Action=Welcome

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