



I N S I G H T

Lessons learned from the Concurrent Courses initiative

Dual Enrollment Policies and Practices

*Earning College Credit
in California High Schools*

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Foreword

The James Irvine Foundation joins educators and policymakers across the country who share a growing interest in the potential of dual enrollment. In particular, when high school students take college courses to earn transferable college credits, how are they positioned to succeed in college and career? How can we expand this opportunity to a broader range of students?

Irvine's Youth program seeks to help increase the number of low-income youth in California who complete high school on time and attain a postsecondary credential by age 25. To ensure access to better educational and economic opportunities for a diverse group of students, our funding supports multiple pathways to the same destination: success in high school, college and careers. The multiple pathways approach integrates rigorous academics with demanding career and technical education, comprehensive student support services and relevant work-based learning opportunities, so that all high school students are prepared for both college and career.

Research suggests that career-focused dual enrollment programs can improve secondary and postsecondary academic outcomes for a variety of students. In this context, the Concurrent Courses initiative was created to demonstrate the feasibility of using dual enrollment to enhance career and technical education pathways — particularly for low-income youth who are struggling academically or who are within populations historically underrepresented in higher education.

The Concurrent Courses initiative is being managed by the Community College Research Center (CCRC) housed at Teachers College, Columbia University. We would like to thank and recognize the authors of this brief: Joanne Wang Golann, who is a Senior Research Assistant and Katherine L. Hughes, who is the Assistant Director for Work and Education Reform Research at CCRC. The authors conducted extensive research on the dual enrollment environment in California in preparation for Concurrent Courses. This brief shares their analysis with the field to clarify the opportunities and challenges for supporting promising pathways to college.



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The Dual Enrollment Opportunity

Dual enrollment programs offer high school students opportunities to take college-level courses on a high school or college campus. These programs offer challenging curriculum, exposure to college environments and an opportunity to earn college credits while still in high school.

Nationally, 813,000 high school students — about 5 percent of all high school students — took college credit courses through postsecondary institutions in 2002–03.¹ Seventy-seven percent of the students did so at public two-year institutions. In California, 115,000 high school students — about 6 percent of the state’s two million public high school students — were concurrently enrolled in California community colleges in 2005–06.² Of these, 29,000 students took career and technical education (CTE) courses. CTE is defined by the California Department of Education as a program of study comprising a multiyear sequence of courses that integrates core academic knowledge with technical and occupational knowledge to provide students with a pathway to postsecondary education and careers.

Students who struggle academically or who are at risk of dropping out may realize significant benefits from dual enrollment.

Dual enrollment has historically targeted high-achieving high school students, but today it is increasingly seen by educators and policymakers as a strategy to help a broader range of students make the transition from high school to college. Students who struggle academically or who are at risk of dropping out may also realize significant benefits from dual enrollment.

Dual enrollment is known to provide a range of positive benefits:³

- Increasing the academic rigor of high school curriculum
- Helping low-performing students meet high academic standards
- Providing more academic opportunities and electives
- Reducing high school dropout rates and increasing student aspirations
- Improving student acclimation to college life
- Reducing the cost of college by enabling students to earn college credit that is often tuition-free

At the same time, there is uncertainty about how to offer dual enrollment opportunities in the current California policy environment. Many institutions are hesitant to promote dual enrollment because of a 2003 community college system audit, which uncovered abuses in enrollment and funding practices for concurrently enrolled students, particularly those enrolled in physical education courses.⁴ In addition, many practitioners are wary of the potential ramifications of amendments to state dual enrollment policy in recent years.

This report is intended to inform educators, policymakers, administrators and researchers about current policies and practices that shape dual enrollment in California. The report clarifies current policy and shares examples of existing programs that are successfully providing college credit opportunities to California high school students. The sections that follow provide an overview of various program models, review the research on dual enrollment, summarize the policies pertaining to dual enrollment in California and discuss how this information has informed the development of the Concurrent Courses initiative funded by The James Irvine Foundation.

CONCURRENT COURSES INITIATIVE: PATHWAYS TO COLLEGE AND CAREERS

The Concurrent Courses initiative was created to demonstrate the feasibility of using dual enrollment programs to enhance college and career pathways for low-income youth who are struggling academically or who are within populations historically underrepresented in higher education. Funded by The James Irvine Foundation, the Concurrent Courses initiative provides support to eight secondary and postsecondary partnerships in California as they develop, enhance and expand their career-focused dual enrollment programs.

The initiative, funded through December 2010, is being managed and evaluated by the Community College Research Center at Teachers College, Columbia University, with support from MDRC, a nonprofit, nonpartisan education and social policy research organization.

Dual Enrollment Definitions

College course-taking by high school students is described by a number of terms. Here are the most common:

- **Dual enrollment:** High school students enroll in college courses and have the opportunity to earn college credit. Colleges may sponsor structured programs in partnership with high schools and/or high school students may enroll of their own volition and attend afternoon, evening or weekend classes on campus. Dual enrollment programs can be located on college or high school campuses and can be taught by college instructors or specially credentialed high school instructors who are supervised by college faculty.
- **Dual credit:** High school students earn both high school and college credits for the same course.
- **Articulated credit:** High school students earn college credit for a high school course that has been determined to be comparable to a college course. Credit is typically awarded after the student enrolls in one or more courses at the partnering college.
- **Concurrent enrollment:** In California, the term concurrent enrollment is often used in place of dual enrollment. It is also used to describe community college students who take courses at the University of California and California State University campuses (CA Education Code Section 66738). The National Alliance of Concurrent Enrollment Partnerships narrowly defines concurrent enrollment as high school students taking college courses taught at their high schools by qualified high school teachers.

College Credit Models

A wide range of programs allows students to take college courses and earn college credit while still in high school. Programs vary in their course content, course location, type of instructor, method of earning college credit, support services and characteristics of participating students. Some national

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programs, such as the Early and Middle College High Schools and Tech Prep, focus on college course-taking and course articulation. California is home to a variety of programs through which students may earn college credit, even when that is not the primary focus of the program. For example, students in California Partnership Academies or Regional Occupational Programs often have the option to receive college credit for their courses. Finally, some postsecondary

institutions develop their own dual enrollment programs as part of their high school outreach efforts. This section provides an overview of various models found in California, including a range of CTE dual enrollment models.

Tech Prep

Tech Prep is a federally funded program established to improve the alignment between high school and two-year college programs in career and technical fields. In California, 80 Tech Prep consortia engage all 109 community colleges. In 2005–06, approximately 350,000 students were served through Tech Prep in 1,253 California high schools.

Tech Prep uses a “2+2” sequence that aligns two years of secondary coursework within a particular career and technical area with two years of postsecondary coursework, culminating in an associate degree or certificate. In California, there are 678 such 2+2 pathways in 15 career sectors. In some cases, students can earn college credit retroactively, or “in escrow,” for their articulated high school courses if they go on to complete one or more specified courses at the partner college. However, some research has found that few students actually claim their college credits or continue on to the college program.⁵ For these reasons, several Tech Prep programs have shifted to a credit by examination model or a dual enrollment model.

In the newest reauthorization of Perkins funding (the federal program supporting career and technical education programs), states will have the option to eliminate the Tech Prep funding stream. However, California chose to retain its Tech Prep funding in its 2008–12 Perkins plan.

Promising practices

SANTA BARBARA DUAL ENROLLMENT PROGRAM

Santa Barbara City College (SBCC) and its partners serve 1,800 students from four high schools in their dual enrollment program. They offer more than 110 courses in 32 disciplines, many of which are part of career pathways. Most of these courses are taught at high schools by qualified high school teachers who are hired as adjuncts of the college. The dual enrollment courses maintain the rigor of regular college courses by using the same syllabi and textbooks, and by ensuring that high school teachers hired as adjuncts meet the California Community College Minimum Qualifications to teach college-level coursework.

SBCC has created incentives for all its partners to collaborate. Tech Prep funds are used to support dual enrollment liaisons at high school and partnership meetings. The college provides support for a dual enrollment coordinator and collects full-time equivalent (FTE) funding for dual enrollment students. High schools that provide instructors for the dual enrollment courses receive \$500 per course unit, from which the instructor receives a \$500 stipend. SBCC has formalized its policies and procedures in dual enrollment handbooks for students and instructors.

Regional Occupational Centers and Programs

Regional Occupational Centers and Programs (ROCPs) were established in California in 1967 to provide career and technical education and training to high school students and adults. California's 74 ROCPs served more than 375,000 high school students in 2005–06, slightly more than those served via Tech Prep models. ROCPs are funded under Proposition 98 with funding based on students' average daily attendance (ADA).

While some ROCPs have their own campuses, most of the programs provide CTE courses at local high schools or at business facilities. Courses are tuition-free and subjects taught are based upon local and regional labor market demands. While the primary purpose of ROCPs is to provide career education and training, more than 630 ROCP courses are eligible for college credit (2005–06). In the coming years, ROCPs will have a stronger focus on serving high school students because no more than 10 percent of the state-funded ADA may be claimed for students who are not enrolled in grades nine to 12 (Assembly Bill 2448). ROCPs will also be required to ensure that 90 percent of their courses are part of occupational course sequences by 2010 (Assembly Bill 2448). ROCPs, therefore, have opportunities to take a larger role in providing both career and college preparation for high school students.

California Partnership Academies

Established in 1984 to help at-risk students stay in school and graduate, California Partnership Academies (CPAs) are school-within-school programs that typically serve 100 to 150 students per school in grades 10 through 12. The career academy model originated in Philadelphia in the late 1960s and has spread to an estimated 2,000 high schools across the nation. Each academy has a career theme, integrates CTE courses with academic courses, creates a small learning community where students take a number of classes together, and establishes partnerships with industry and local colleges.

The California Department of Education currently funds 336 CPAs in 225 high schools. CPAs are required to enroll at least 50 percent at-risk students.⁶ While dual enrollment is not a central feature of these academies, approximately 20 percent of CPA juniors and seniors in 114 academies enrolled in college credit courses in 2004–05.⁷ Twenty-one academies reported at least 50 percent of their students taking college credit courses. However, most of these college credits are earned through capstone high school courses that are articulated with the community college rather than through dual enrollment. One challenge to adding dual enrollment courses to the academies is that CPAs already require that students participate in mentorship and internship opportunities, thereby limiting the time in which students might be able to take college courses.

Early/Middle College High Schools

Early College High Schools and Middle College High Schools represent two similar high school reform models with a strong focus on dual enrollment in a small school environment. Both of these programs target underserved students who are at risk of dropping out of high school and unlikely to attend college. The first Middle College High School opened in 1974 at LaGuardia Community College in New York City, and the Early College High School Initiative began in 2002 under the leadership of the Bill & Melinda Gates Foundation.

The two models differ in a few key ways. All Middle College High Schools are located on college campuses so that students are treated as and see themselves as college students.⁸ The Early College High School model aims to have students earn their high school diploma plus two years of college credit in five years or less. Additionally, there are Middle College-Early Colleges that blend the features of the two programs. Both models provide extensive academic support services for their students, such as tutoring, mentoring and college success seminars.

The Middle College National Consortium provides support for 30 Middle College High Schools. Since 1988, the California legislature has also supplied funds for these schools and currently provides support for 13 Middle Colleges that serve approximately 2,000 students. The Bill & Melinda Gates Foundation and its partners have started or redesigned almost 160 Early College High Schools in 24 states. The Gates Foundation supports 35 Early College High Schools in California.

Promising practices

SAN DIEGO CITY COLLEGE MIDDLE COLLEGE PROGRAM

Since 1999, San Diego City College and Garfield Continuation High School have partnered together to develop a Middle College program that serves approximately 75 students each year. The program focuses on students who are behind in credits and at risk of dropping out and therefore is strongly centered on student support. One innovative program service has college students, some of whom have graduated from the program, acting as mentors for the Middle College students. The mentors also conduct summer outreach to Garfield students who have graduated from high school or dropped out of college to encourage them to enroll or re-enroll in college. Another feature of the program is a six-week career planning course at the college that teaches students job preparation skills. This is a course specifically designed for Middle College students. About 80 percent to 90 percent of the students pass the career planning course.

High School Outreach Programs

In addition to the specific models described in this section, many colleges offer dual enrollment courses to high school students either on high school or college campuses. Often, this is done as part of a college's outreach program to high school students. Pierce College in Woodland Hills claims to have the largest such program in California, serving 3,000 students per semester in 130 sections in 15 high schools. The courses are typically taught at high schools by college faculty during and after regular school hours. Course offerings are primarily academic rather than CTE. Admissions criteria apply only to math and English classes, for which students must pass an assessment test. The Sacramento State University Accelerated College Entrance (ACE) program offers high school students credit by examination for high school courses that have university-level content and meet standards. The ACE program serves approximately 2,000 students from 30 high schools. Typically, high school outreach programs do not have targeted efforts to enroll disadvantaged students, and they do not provide special support services for students in the courses.

Research on Dual Enrollment

Two studies conducted by the National Center for Education Statistics provide information on nationwide dual enrollment participation in 2002–03.⁹ While only about 5 percent of public high school students took college courses, 71 percent of U.S. public high schools, 57 percent of Title IV degree-granting postsecondary institutions, and 98 percent of public two-year institutions had high school students taking college credit courses. Of the postsecondary institutions with dual enrollment programs, 80 percent offered courses on the college campus, 55 percent offered courses on the high school campus, and 12 percent offered courses at some other location. When courses were offered on the high school campus, 26 percent were reported to be taught by college instructors only, 32 percent by high school instructors only and 42 percent by both college and high school instructors.

Existing research leaves much unexplored. For example, dual enrollment programs are offered in a wide variety of structures. Research has yet to compare these different structures and provide evidence as to which is most effective.

Much of the policy interest in dual enrollment programs emerges from a conviction that such programs can help strengthen preparation for college, the transition into college and success in college for a broad range of students. Supporters assert that these programs have the potential

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not only to improve academic preparation but also to provide students with better information about college and the social skills needed to be successful there. Indeed, many argue that dual enrollment participation may be advantageous to high school students who may be inadequately prepared for college. While there is a growing interest in offering rigorous college coursework

to at-risk students, dual enrollment programs still tend to be aimed at high-achieving students. Among postsecondary institutions with dual enrollment programs, 85 percent set academic eligibility requirements excluding at-risk students from participation. The most common measures used were a minimum high school grade point average or an assessment test score. Only about 2 percent of postsecondary institutions with dual enrollment programs specifically targeted at-risk students.

Notwithstanding the enthusiasm for dual enrollment in general, there is limited research that demonstrates the effectiveness of dual enrollment in preparing students for college and helping them to succeed in college. While there have been a number of studies on dual enrollment, most focus on program implementation or descriptive student outcomes. Two extensive literature reviews on dual enrollment research found few rigorous, empirical studies and could not determine the effect of dual enrollment on student outcomes.¹⁰ At the state and local levels, studies from New York City and Florida show promising results, but these also are not definitive.¹¹ An evaluation of the Early College High School Initiative has limited data on student outcomes, although it finds high student attendance rates (mean of 94 percent) for Early College students. Students and teachers also reported a positive learning environment and college-going culture.¹²

The Community College Research Center recently released a study that examines the influence of dual enrollment program participation on CTE and non-CTE students in Florida and on CTE students in New York City while controlling for student and school characteristics.¹³ In Florida, for both the full sample and the CTE sub-sample, dual enrollment participation was positively related to the following outcomes:

- Students' likelihood of earning a high school diploma
- College enrollment and full-time college enrollment
- Persistence to the second semester of college
- Higher GPA one year after high school graduation
- Persistence in college two years after high school graduation
- More credits earned three years after high school graduation

In New York City, dual enrollment participation was positively related to:

- Pursuit of a bachelor's degree
- Higher first-semester GPA
- More credits earned 3.5 years after high school graduation

In New York City, additional positive outcome variables were associated with dual enrollment participation when the student took two or more college courses. Finally, in Florida, the positive association between dual enrollment participation and postsecondary outcomes is particularly strong for groups who are struggling in postsecondary education, especially males and low-income students.

The findings provide an encouraging picture of general and career-focused dual enrollment as a strategy for promoting student access to and persistence in postsecondary education. Still, the results are not definitive, and additional research is needed to determine whether dual enrollment programs have any causal effect on college access or eventual academic success. An obstacle to conducting quantitative research on dual enrollment is the lack of linkage between state secondary and postsecondary datasets so that students can be tracked from high school into college. A recent report provides recommendations for improving states' dual enrollment data collection and research capacities.¹⁴

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California Dual Enrollment Policy

A recent report found that 40 states have policies to explicitly regulate dual enrollment programs.¹⁵ In California, legislation governs funding and student eligibility as well as the awarding of college credit. The two major pieces of legislation governing dual enrollment are SB 292 (1996), which allows high schools to claim full average daily attendance (ADA) for students who take dual enrollment courses as long as they meet the requirements for a minimum day, and SB 338 (2003), which clarifies student eligibility and funding policies. California does not set policy for program structure, such as program location or qualifications of dual enrollment instructors.

California Dual Enrollment Legislation

Education Code 76300: The governing board of a community college district may exempt special part-time (high school) students from enrollment fees.

Senate Bill 292 (1996): School districts can claim full ADA for dually enrolled students as long as they are enrolled in and attend high school for 240 minutes a day. They can claim three-quarters ADA for dually enrolled 11th- and 12th-grade students who attend high school for 180 minutes or the appropriate percentage of ADA for the number of minutes between 240 and 180, inclusive.

Senate Bill 338 (2003): The governing board of a school district may determine which students might benefit from “advanced scholastic or vocational work.” To participate, students must obtain principal’s recommendation and parental consent. Community colleges may restrict admission based on age, grade level or multiple assessments. In order for a college to claim full-time equivalent status, the class must be open and advertised to the general public. Summer dual enrollment is limited to 5 percent of each grade at any high school.

Senate Bill 70 (2005): Funding is provided to improve workforce development efforts by strengthening career and technical education pathways between high schools and community colleges.

Senate Bill 1303 (2006): Students enrolled in lower division transfer courses, for-credit occupational courses, and California High School Exit Exam preparatory courses are exempt from the 5 percent summer session cap.

Funding

Program funding can have significant implications for institutions and students. If high schools lose funds when their students take college courses, they may be unwilling or unable to encourage student participation. If colleges cannot collect tuition or full-time equivalent (FTE) funds for high school student enrollees, they lack an incentive to partner with high schools to provide such opportunities for their students. If students must pay fees for tuition and textbooks, low-income students may be unable to participate.

In California, policy for dual enrollment funding is commonly viewed as a barrier to program growth. School districts can claim full ADA for dually enrolled students only if they are enrolled and attend high school for 240 minutes per day. They can claim three-quarters ADA for dually enrolled 11th- and 12th-grade students who attend high school for 180 minutes (Senate Bill 292). Community colleges can claim FTE for dually enrolled students (considered “special admit” students), as long as the courses are open and advertised to the public (Senate Bill 338). Dual enrollment courses are often scheduled before and after school hours or on weekends so that both institutions can claim funding.

In California, policy for dual enrollment funding is commonly viewed as a barrier to program growth.

The California Department of Finance is opposed to double funding, in which both institutions receive funding for dual enrollment students. The department views double funding as “double-dipping” because the state provides per-pupil funds to both the secondary and postsecondary institutions for the same student. Still, if there is consensus that the spread of dual enrollment is desirable, many experts advocate a “hold harmless” funding model, in which neither participating institution loses any of its regular per-pupil funding. Nine states currently have double funding policies: Arizona, Colorado, Illinois, Maryland, Minnesota, Missouri, New Mexico, Virginia and Wyoming.¹⁶ In 2006, California Assembly Bill 2050 was proposed to allow both community colleges and high schools to claim apportionment for dual enrollment students. This bill failed to pass.

The governing board of a community college district may exempt special part-time students, including dual enrollment students, from enrollment fees (CA Education Code Section 76300). In this way, the state leaves it to the district to decide whether or not to charge high school students fees. Part-time students may enroll in up to 11 units per semester. Special full-time students may be individually considered for a Board of Governors (BOG) Fee Waiver.¹⁷ Undocumented students must pay non-resident fees for college courses (\$160/unit), although up to 10 percent of nonresident students in the community college district may be exempted from tuition charges (CA Education Code Section 76140). All students must pay for textbooks and transportation unless the school district or college agrees to cover these costs. In some cases, the school will buy a set of college textbooks that students can borrow for the term; however, updating shared classroom sets can still be costly.

Through the Governor’s Career Technical Education Pathways and Workforce Development Program (SB 70), the legislature has allocated \$20 million in competitive grants to improve career pathways between K–12 schools and community colleges in the 2005–06 and 2006–07 academic years. Funding for this initiative is projected to be available through 2014. While concurrent/dual enrollment does not appear in the legislation, funds have been used to improve collaborations between high schools and community colleges and to develop new articulation agreements.

Student Eligibility

Dual enrollment programs are increasingly championed as a means to support the preparation of a wide range of students for postsecondary education, including students who might not initially view themselves as college-bound. Relying on evidence that rigorous high school curricula strongly predict student success in college, proponents argue that access to dual enrollment could smooth students' transitions into college by exposing them to challenging academics.¹⁸ Despite calls for wider access, many states still require dually-enrolled students to be academically advanced. This likely stems from educators' and policymakers' concerns that average-achieving high school students may not be successful in dual enrollment courses. Of the states with dual enrollment policies, a significant number of those place limitations on participation.¹⁹ For example, in Florida and Missouri, students must have a 3.0 GPA in order to participate in dual enrollment. Such state policies can pose barriers to the spread of programs such as Early and Middle College High Schools that specifically target lower-achieving students and offer support services and remedial curricula to help them be successful in their college-credit courses.

California does not impose statewide eligibility criteria for dual enrollment, except that students must obtain their principal's recommendation and parental consent. School districts can determine which students might benefit from "advanced scholastic or vocational work," and community colleges may restrict admission based on age, grade level or multiple assessments (Senate Bill 338). Some colleges require that students pass assessment tests before enrolling in courses, particularly academic courses such as math and English.

School districts can determine which students might benefit from "advanced scholastic or vocational work," and community colleges may restrict admission based on age, grade level or multiple assessments.

For summer dual enrollment sessions, a principal may recommend a student only if the pupil meets all of the following criteria: a) the pupil demonstrates adequate preparation in the discipline to be studied; b) the pupil exhausts all opportunities to enroll in an equivalent course at his or her school; and c) no more than 5 percent of the total number of students who completed that grade can be recommended (Senate Bill 338). Senate Bill 1303 exempts from the summer cap students who enroll in lower division transfer courses, for-credit occupational courses, as well as high school seniors who enroll in California High School Exit Examination preparatory courses. Assembly Bill 1409, which is currently being deliberated, would increase the summer cap from 5 to 10 percent.

Credit and Articulation

"Dual credit" refers to the awarding of both high school and college credits for the same course. In many cases, the high school awards double the credit for a college course, so that a one-semester college course fulfills a year-long high school requirement. In California, the high school district and the community college district governing boards can determine whether to award both high school and college credit to students for dual enrollment courses (CA Education Code Section 76001). The advantage of dual credit is that it gives students more flexibility in their schedules to take college courses since they are concurrently meeting high school requirements.

Another way in which students can acquire college credit is through articulated courses. An articulated high school course is a course “that the faculty in the appropriate discipline... have determined to be comparable to a specific community college course” (CA Code of Regulations, 55051). Tech Prep programs require partnering high schools and colleges to articulate and coordinate their courses, so that participating students are eligible to earn college credits for the high school courses upon transitioning formally to the college.

While the articulation model is a common alternative to dual enrollment, it has its own limitations. A frequent criticism of the articulation model is that few students actually receive college credit for their articulated courses because they attend a different college, do not complete the necessary paperwork, or do not even know that they can receive college credits.²⁰ In California, articulation agreements must be developed locally by departmental faculty, which is both time-consuming and dependent on specific individuals. Furthermore, colleges in the University of California and California State University systems tend to be less willing to articulate high school courses, and course transferability can pose a problem.

To address some of these concerns, several California community colleges have adopted a credit by examination model (CA Code of Regulations, Section 55050). Students who are registered at the community college, who are in good academic standing and who pass a final exam (or in some cases, complete a portfolio) that has been approved by the college faculty are immediately awarded college credit for their articulated course. For example, San Diego Unified School District has district-wide articulation agreements with the San Diego Community College District that allow students who pass the exam with a B or better to receive a “credit by examination” on their transcript. In addition, in an effort to facilitate the process of local articulation, the Academic Senate has been convening high school, regional occupational center and program (ROCP) and college faculty to develop articulation templates for different career pathways. This two-year project is being funded through a \$4 million SB 70 grant from the California Community Colleges Chancellor’s Office.

While both secondary and postsecondary faculty can teach dual enrollment courses, differences in teacher certification for secondary and postsecondary instructors can pose an obstacle.

Dual Enrollment Instructors

According to the most recent information available, 12 states have stipulations regarding dual enrollment instructors. For example, Georgia requires all dual enrollment instructors to be from the postsecondary institution, while Wyoming allows for any secondary teacher to teach a dual enrollment course.²¹ California does not have specific legislation pertaining to dual enrollment instructors. However, while both secondary and postsecondary faculty can teach dual enrollment courses, differences in teacher certification for secondary and postsecondary instructors can pose an obstacle.

In California, community college instructors must possess a master's degree in their subject area for academic disciplines and for many career-related disciplines. In order for a high school or ROCP teacher to be hired as an adjunct by the community college, he or she must meet the qualifications of a college instructor. Since many high school teachers do not possess a master's degree in the subject that they are teaching, some high schools have difficulty finding instructors for dual enrollment courses. Likewise, ROCP teachers, who must have five years of industry experience, often do not have a master's degree in their field.

While community college instructors can teach dual enrollment courses at the high school, they may not be willing or comfortable in doing so. Some faculty members are resistant to having high school students in their regular college courses and are unfamiliar with their roles and responsibilities with regard to these students. To address some of these concerns, the Academic Senate for California Community Colleges recently released a report outlining policies pertaining to minors on college campuses.²² It is also common for individual institutions to organize professional development workshops providing dual enrollment instructors with information on teaching college-level material to high school students.

Concurrent Courses Initiative

In keeping with its goal of increasing the number of low-income youth in California who complete high school on time and attain a postsecondary credential by the age of 25, The James Irvine Foundation funded the Concurrent Courses Initiative: Pathways to College and Careers in December 2007. This three-year, \$4.4 million initiative builds on the Foundation's work in promoting "multiple pathways" for students. The multiple pathways approach integrates rigorous academics with demanding career and technical education, comprehensive student support services, and relevant work-based learning opportunities, so that all high school students are prepared for both college and careers.²³ The initiative funds eight partnerships (see following subsection) that are using the grants to strengthen college and career pathways for students by developing, enhancing and expanding supportive and challenging career-focused dual enrollment opportunities. The targeted population comprises low-income youth who are struggling academically or who are within populations historically underrepresented in higher education.

The Community College Research Center (CCRC) that is managing the Concurrent Courses initiative has extensive experience researching dual enrollment and career and technical education programs. The Concurrent Courses initiative builds on this body of research, but also takes a new approach in supporting career-focused dual enrollment programs. The James Irvine Foundation and CCRC share the conviction that supporting a broad range of students as they engage in relevant career and technical studies and challenging college coursework will result in smoother transitions to higher education, persistence in postsecondary education and, ultimately, degree attainment.

To determine the best design for this new initiative, CCRC spent several months conducting research on the existing scope of and future possibilities for expanding career-focused dual enrollment across California. This strategic development work included site visits to community colleges in Santa Barbara, San Diego, Sacramento and the Los Angeles area among others, as well as telephone interviews with additional individuals around the state. CCRC wrote a memorandum summarizing findings and recommendations, and then the organization convened relevant state government officials and education experts to react to those findings.

Supporting a broad range of students as they engage in relevant career and technical studies and challenging college coursework will result in smoother transitions to higher education, persistence in postsecondary education and, ultimately, degree attainment.

Through this work, CCRC identified the following as core components of high-quality career-focused dual enrollment programs. These components were used to select the partnerships for the initiative.

- Expanding career-focused dual enrollment participation to low-income youth who are struggling academically or who are within populations historically underrepresented in higher education
- Ensuring rigor, authenticity and transferability of college courses
- Integrating rigorous academics with career and technical subject matter
- Creating strong collaborative relationships between secondary and postsecondary partners
- Providing supports to help students be successful in their college courses and college transitions
- Creating program sequences that span high school and college classes
- Collecting data on students' secondary and postsecondary outcomes and willingness to participate in an evaluation

A simultaneous evaluation will track student outcomes to document the advantages of using dual enrollment to strengthen career and technical education pathways and also to document policy and institutional barriers and strategies adopted to address these barriers by the respective sites.

Designed and carried out by CCRC, the evaluation will include qualitative implementation analysis and quantitative analysis of student outcomes via student survey and California Partnership for Achieving Student Success (Cal-PASS) data. A series of topical briefs and a final comprehensive report will be released during the course of the initiative.

This brief describes several established dual enrollment programs that can serve as models to guide future practice. Building on existing research and work in the field, Concurrent Courses will provide an opportunity to examine how dual enrollment opportunities may be delivered to student groups of focus through career and technical programs and a multiple pathways approach, as well as how program participation may influence students' success in high school and their transition to college and work. A major goal of the initiative will be to share the knowledge gained during the three years of project implementation with other practitioners and policymakers in California, ultimately contributing to more favorable conditions for the development of dual enrollment opportunities statewide.

The Concurrent Courses Partners

In March 2008, the following eight secondary/postsecondary partnerships were selected on the basis of their capacity to implement the core components identified in high-quality career-focused dual enrollment programs.

Arthur A. Benjamin Health Professions High School, Sacramento

Partner: Sacramento City College

Arthur A. Benjamin Health Professions High School is a “multiple pathways” school that integrates health care career standards with a rigorous academic high school curriculum. Students from this high school, 80 percent of whom come from underrepresented groups, will take courses in allied health at the college, with supports from student mentors and through summer induction activities. It is expected that the majority of students will take two college courses before high school graduation.

City College of San Francisco, San Francisco

Partner: San Francisco Unified School District

City College of San Francisco has a long-running dual enrollment program with multiple high school partners in several career fields. City College aims to include more underrepresented students in its programs through targeted outreach efforts involving teen peer groups and parent liaisons. It also plans to provide special support for those students once enrolled.

Long Beach Unified School District, Long Beach

Partners: Long Beach City College, California State University Long Beach

The ACE Academy at Jordan High School, where 70 percent of students come from low-income families, is a new program focused on architecture, construction and engineering (ACE). The high school will work with its two college partners to develop a curriculum that integrates academic and technical education. It will also develop dual enrollment opportunities for ACE students that will take place at the two colleges, as well as summer camps and other academic and support activities.

Los Angeles City College, Los Angeles

Partners: Hollywood Senior High School, Downtown Magnets High School, Miguel Contreras Learning Complex

Los Angeles City College offers popular multimedia and Web development certificate programs that will soon be available to 120 low-income and underrepresented students in multimedia academies at the three partnering high schools. Students will be able to take a sequence of college courses at their high schools and on the college campus, and they will potentially earn certificates (18 college credits). Career exploration workshops will also be made available.

North Orange County ROP, Anaheim

Partners: Anaheim Union High School District, Cypress College, Fullerton College

The North Orange County Regional Occupational Program has created a well-established pathway in education for students interested in teaching and related careers. More than three-quarters of students in the education pathway are English language learners. Transferable college courses taught by college instructors will be offered to students after school. The program will also make available free tutoring to support students' success in the courses and field trips to the colleges.

Santa Barbara City College, Santa Barbara

Partners: Santa Barbara High School District, Carpinteria High School District, South Coast ROP

Santa Barbara City College currently has a large existing dual enrollment program, offering more than 100 college courses to more than 1,000 high school students, many of whom are enrolled in career academies. The college will develop bilingual program materials to encourage underrepresented students to participate, and it will provide tutors and peer advisors to help these students make a successful transition to college after high school graduation.

Shasta Union High School District, Shasta

Partners: Anderson Union High School District, Shasta College, Shasta-Trinity ROP

These partners have a strong history of working together on career and technical education and articulated coursework, and they will put that experience to work implementing dual enrollment in the renewable energy field. Activities include developing program sequences in renewable energy, organizing an annual renewable energy fair, providing transportation for students to take courses on the college campus and tutoring to support students' academic progress.

Tulare Joint Union High School District, Tulare

Partner: College of the Sequoias

This partnership will provide college courses on the College of the Sequoias campus for high school students who are participating in allied health programs throughout the district, 75 percent of whom are low-income. Existing articulated programs will be reformed so that students will receive free, transcribed college credit that is transferable and meets industry certification requirements.

For more information about the Concurrent Courses initiative, contact Katherine L. Hughes, Assistant Director for Work and Education Reform Research, Community College Research Center, at hughes@tc.edu.

Dual Enrollment Resources

The following links provide information on dual enrollment policy and practices both in California and nationwide.

Dual Enrollment Research and Policy

American Youth Policy Forum, The College Ladder: Linking Secondary and Postsecondary Education for Success for All Students
<http://www.aypf.org/projects/LuminaProjectonSPLOs.htm>

Community College Research Center, a collection of dual enrollment reports
<http://ccrc.tc.columbia.edu/Collection.asp?cid=18>

Community College Research Center, Dual Enrollment Students in Florida and New York City: Postsecondary Outcomes
<http://ccrc.tc.columbia.edu/Publication.asp?UID=578>

Early College High School Initiative, publications and evaluations
<http://www.earlycolleges.org/publications.html>

Jobs for the Future, Integrating Grades 9 Through 14: State Policies to Support and Sustain Early College High Schools
<http://www.jff.org/Documents/Integrating9to14.pdf>

Jobs for the Future, On Ramp to College: A State Policymaker's Guide to Dual Enrollment
<http://www.jff.org/Documents/OnRamp.pdf>

National Center for Education Statistics, Dual Credit and Exam-Based Courses in U.S. Public High Schools: 2002–03
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005009>

National Center for Education Statistics, Dual Enrollment of High School Students at Postsecondary Institutions: 2002–03
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2005008>

California Dual Enrollment Policy

CA Education Code Section 48800–48802
<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=48001-49000&file=48800-48802>

CA Education Code Section 76000–76002
<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=75001-76000&file=76000-76002>

Senate Bill 292
http://www.leginfo.ca.gov/pub/95-96/bill/sen/sb_0251-0300/sb_292_bill_960725_chaptered.pdf

Senate Bill 338 and questions and answers regarding implementation
http://www.leginfo.ca.gov/pub/03-04/bill/sen/sb_0301-0350/sb_338_bill_20031011_chaptered.pdf
http://www.cccco.edu/Portals/4/Legal/advisories/attachments/Advisory_05-01.pdf

Senate Bill 1303
http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_1301-1350/sb_1303_bill_20060929_chaptered.pdf

California Dual Enrollment Resources

Academic Senate for California Community Colleges, Minors on Campus: Underage Students at Community Colleges
http://www.asccc.org/Publications/Papers/Downloads/PDFs/Minor_2006.pdf

Academic Senate for California Community Colleges, Statewide Career Pathways project
<http://statewidepathways.org/>

California Community Colleges Chancellor's Office, Middle College High Schools
<http://www.cccco.edu/SystemOffice/Divisions/AcademicAffairs/MiddleCollegeHighSchool/tabid/788/Default.aspx>

Concurrent Courses: Earning College Credit in California High Schools
 Project Web site: <http://www.concurrentcourses.org>
 Article: <http://irvine.org/publications/iq/youth.shtml>
 Overview: <http://ccrc.tc.columbia.edu/Collection.asp?cid=47>

Foundation for California Community Colleges, Early College High Schools
<http://www.foundationccc.org/WhatWeDo/EarlyCollegeHighSchool/tabid/70/Default.aspx>

The National Center for Public Policy and Higher Education, Mixed Signals in California: A Mismatch Between High Schools and Community Colleges
http://www.highereducation.org/reports/pa_mixed_signals/mis.pdf

Pierce College High School Outreach Program
http://www.piercecollege.edu/students/high_school_outreach/

Sacramento State Accelerated College Entrance Program
<http://edweb.csus.edu/Projects/ACE/>

Santa Barbara City College Dual Enrollment Program
<http://www.sbccc.edu/prospectivestudents/index.php?sec=2417>

Dual Enrollment Program Examples

City University of New York College Now
<http://collegenow.cuny.edu/>

Early College High School Initiative
<http://www.earlycolleges.org/>

Florida Dual Enrollment Program
<http://www.fldoe.org/articulation/>

Georgia ACCEL program
http://www.doe.k12.ga.us/ci_cta.aspx?PageReq=CICTASeam

Minnesota Post Secondary Enrollment Options (PSEO)
http://education.state.mn.us/mde/Academic_Excellence/School_Choice/Post_Secondary_Enrollment_Options_PSEO/index.html

National Middle College Consortium
<http://www.mcnc.us/>

Ohio Seniors to Sophomores
<http://www.governor.ohio.gov/Default.aspx?tabid=893>

Pennsylvania's Project 720
<http://www.project720.org/content/view/36/117>

Washington State Running Start
<http://www.k12.wa.us/RunningStart/default.aspx>

Endnotes

- ¹ National Center for Education Statistics (2005), *Dual enrollment of high school students at postsecondary institutions: 2002–03*, Washington, DC: U.S. Department of Education.
- ² According to the California Community College Chancellor's Office, there were 114,833 Special Admit students in California community colleges in the 2005–06 academic year.
- ³ Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. (2007), *Dual enrollment students in Florida and New York City: Postsecondary outcomes*, CCRC Brief No. 37, New York: Columbia University, Teachers College, Community College Research Center.
- ⁴ California Community Colleges Chancellor's Office (2003), *First report to the legislature on status of systemwide investigation of college/high school concurrent enrollment*, retrieved April 23, 2008, from http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1b/2b/c9.pdf.
- ⁵ Bragg, D.D. (2001), *Promising outcomes for tech-prep participants in eight local consortia: A summary of initial results*, St. Paul, MN: National Research Center for Career and Technical Education.
- ⁶ California Education Code 54690 defines “at-risk” students as students enrolled in high school who are at risk of dropping out of school, as indicated by at least three of the following criteria: 1) past record of irregular attendance, 2) past record of underachievement in which the student is at least one year behind the coursework for the respective grade level, 3) past record of low motivation or a disinterest in the regular school program, 4) disadvantaged economically.
- ⁷ ConnectEd: The California Center for College and Career and The Career Academy Support Network (2007), *A profile of the California Partnership Academies 2004–2005*, University of California, Berkeley. These numbers are self-reported from the academies’ annual reports to the California Department of Education. The numbers include community college articulation, CSU, and ECHS courses. They do not include AP/IB courses.
- ⁸ Middle College National Consortium (2007), *Design Principles*, retrieved June 11, 2008, from <http://www.mcmc.us/aboutus.htm>.
- ⁹ National Center for Education Statistics (2005), *Dual enrollment of high school students at postsecondary institutions: 2002–03*, Washington, DC: U.S. Department of Education, and see National Center for Education Statistics (2005), *Dual credit and exam-based courses in U.S. public high schools: 2002–03*, Washington, DC: U.S. Department of Education.
- ¹⁰ Lerner, J. & Brand, B. (2006), *The college ladder: Linking secondary and postsecondary education for success for all students*, Washington DC: American Youth Policy Forum, and see Bailey, T., & Karp, M. M. (2003), *Promoting college access and success: A review of credit-based transition programs*, Washington, DC: U.S. Department of Education.
- ¹¹ Michalowski, S. (2007), *Positive effects associated with College Now participation*, retrieved October 5, 2007, from <http://web.cuny.edu/academics/CUNYPublicSchoolPrograms/databook/library/cnparticipationpositive917.pdf>, and see Skadberg, I. (2005), *Quantitative data analysis of the CUNY College Now program, 2001–2003*, City University of New York, Office of Academic Affairs. See also Florida Department of Education (2004), *Impact of dual enrollment on high performing students*, Data Trend #26, Tallahassee, FL: Author, retrieved October 5, 2007, from http://www.fldoe.org/cc/OSAS/DataTrendsResearch/Data_Trends.asp.
- ¹² American Institutes for Research and SRI International (2007), *Evaluation of the Early College High School Initiative: Select topics on implementation*, retrieved April 23, 2008, from http://www.earlycolleges.org/Downloads/ECHSI_Synth%20Report2007.pdf.

- ¹³ Karp, M. M., Calcagno, J. C., Hughes, K. L., Jeong, D. W., & Bailey, T. (2007), *Dual enrollment students in Florida and New York City: Postsecondary outcomes*, CCRC Brief No. 37, New York: Columbia University, Teachers College, Community College Research Center. The Florida dataset used in the study had records for all students enrolled in a Florida public high school, while the New York City dataset included only students who attended one of New York City's 19 vocational high schools and enrolled in the City University of New York after graduation.
- ¹⁴ Karp, M. M., & Jeong, D. W. (2008), *Conducting research to answer your questions about dual enrollment* (prepared for the Council of Chief State School Officers and the U.S. Department of Education, Office of Elementary and Secondary Education), New York: Columbia University, Community College Research Center.
- ¹⁵ Hughes, K. L., Karp, M. M., Bailey, T., & Fermin, B. (2005), *Update to state dual enrollment policies: Addressing access and quality*, Washington DC: U.S. Department of Education, Office of Vocational and Adult Education.
- ¹⁶ Hughes, K. L., Karp, M. M., Bailey, T., & Fermin, B. (2005), *Update to state dual enrollment policies: Addressing access and quality*, Washington DC: U.S. Department of Education, Office of Vocational and Adult Education.
- ¹⁷ California Community Colleges Chancellor's Office (2005), *Questions and answers re: concurrent enrollment*, Legal Advisory 05-01, retrieved on April 23, 2008, from http://www.cccco.edu/Portals/4/Legal/advisories/attachments/Advisory_05-01.pdf.
- ¹⁸ Adelman, C. (1999), *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment*, Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- ¹⁹ Karp, M. M., Bailey, T., Hughes, K. L., & Fermin, B. (2005), *Update to state dual enrollment policies: Addressing access and quality*, Washington DC: U.S. Department of Education, Office of Vocational and Adult Education.
- ²⁰ Hughes, K. L., Karp, M. M., Bunting, D., & Friedel, J. (2005), Dual enrollment/dual credit: Its role in career pathways, in D. Hull (Ed.), *Career pathways: Education with a purpose*, Waco, Texas: CORD.
- ²¹ Karp, M. M., Bailey, T., Hughes, K. L., & Fermin, B. J. (2004), *State dual enrollment policies: Addressing access and quality*, Washington, DC: U.S. Department of Education, Office of Vocational and Adult Education.
- ²² Academic Senate for California Community Colleges (2006), *Minors on campus: Underage students at community colleges*, retrieved on April 23, 2008, from http://www.asccc.org/Publications/Papers/Downloads/PDFs/Minor_2006.pdf.
- ²³ ConnectEd: The California Center for College and Career (2008), *Why pathways? A better approach to transforming high school education in California*, retrieved on July 3, 2008, from http://www.connectedcalifornia.org/publications/CE_Pathways_8.pdf.

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