



# Developing a Road Map for Student Success

Facilitating the Establishment of Articulation  
between High Schools and CCCs in CTE areas



# Overview

- Establishing Intersegmental Pathways
- Career Technical Education (CTE) Challenges
- Articulation Basics
- Programs of Study
- Student articulation processes and credit by exam
- C-ID and CTE

# Establishing Intersegmental Pathways

- What pathways are needed?
- HS > CCC
- HS > University
- HS > CCC > University
- HS > CCC > Work
- How do we make these intersegmental pathways effective?

# CTE Challenges

- Varied funding sources
  - Funding does not acknowledge differential costs
- External certification/accreditation
  - Programs may need modification to meet external demands
- Responding to industry needs
  - New program may require modification of old
- HS > CCC linkages
  - People are necessary to facilitate processes





# Articulation Basics

- What is articulation?
- Why articulation versus other K12 >>> CCC transition pathways?
- What does articulation do and not do?
  - Local requirements versus credit granting
- How is articulation created and implemented
  - Agreements and processes



# Statewide Career Pathways Project

- Project of the Academic Senate for California Community Colleges
- SB 70 (2005) Education Code § 88532.
- Improving linkages and CTE pathways between HS and CCC

# Statewide Career Pathways Project

- SB1070 (2012), Education Code § 88532.
- Established the CTE Pathways Program
- Develop and strengthen linkages and CTE pathways between HS and CCC to accomplish specified objectives
- Included separate marketing campaign
  - [whodouwant2b.com](http://whodouwant2b.com)

# Statewide Programs of Study

- **Program of Study Templates**
  - SCP convenes faculty to develop templates
  - PoS templates facilitate relationship discussion
  - Articulation and dual enrollment are part of PoS discussion
- Local Programs of Study are developed as a result of a local relationship between institutions



**CTE PROGRAM OF STUDY: Associate of Science for Transfer, Business Administration**

**Industry Sector: Finance and Business  
Career Pathway: Business Management**



| Levels                                    | Grade  | CTE Courses   | English Language Arts                                  | Math   | Social Science                             | Science            | Other Required Courses or Recommended Electives   | Dual and/or Concurrent Enrollment   | Articulated Courses (College Credit for HS Classes)   |   |
|---|--|---|--|--|--|--------------------|---|---|---|---|
| S<br>e<br>c<br>o<br>n<br>d<br>a<br>r<br>y | 9  | Business Basics OR Business Computer Applications   | English  | Algebra I <input type="checkbox"/><br>(UC Approved Business Algebra I recommended) |  | Physical Science   | Physical Education<br>Digital Literacy <input type="checkbox"/>   |   |   |   |
|   | <b>Recommended Activities:</b> Get involved in FBLA, DECA, SAGE, YEP, SCORE, or local Business Entrepreneurship Center. Job Shadow, Internship, Work Experience, or Mentorship Activities. Service Learning, Work Based Learning, or Community Service Activities. Participate in Mock Interviews, Application Workshops, Career Fairs/exploration Activities. Explore Partnership Academy opportunities in high school district.  |   |  |  |  |                    |   |   |   |   |
|   | 10   | Intro to Business Concepts OR Financial Literacy  | English  | Math Recommended: Geometry   | World History                              | Biological Science | Physical Education  |   |   |   |
|   | <b>Recommended Activities:</b> Get involved in FBLA, DECA, SAGE, YEP, SCORE, or local Business Entrepreneurship Center. Job Shadow, Internship, Work Experience, or Mentorship Activities. Service Learning, Work Based Learning, or Community Service Activities. Participate in Mock Interviews, Application Workshops, Career Fairs/activities. Take the SAT. Explore CTE course opportunities.   |   |  |  |  |                    |   |   |   |   |
| S<br>e<br>c<br>o<br>n<br>d<br>a<br>r<br>y | 11   | Accounting I #, International Business, Finance, or VE#   | English (Recommended Integrated Marketing and English) | Recommend UC Business Algebra II   | US History                                 |                    | Foreign Language <input type="checkbox"/><br>Visual Performing Arts <input type="checkbox"/><br>(Districts may allow CTE to fulfill this) | Office Occupations <input type="checkbox"/><br>Business Information Systems or Computer Skills or Business Math | Accounting I Virtual Enterprise (articulates with Intro to Business)  |   |
|   | <b>Recommended Activities:</b> Get involved in FBLA, DECA, SAGE, YEP, SCORE, or local Business Entrepreneurship Center. Job Shadow, Internship, Work Experience, or Mentorship Activities. Service Learning, Work Based Learning, or Community Service Activities/Organizations (Rotary Interact). Participate in Mock Interviews, Application Workshops, College and Career Fairs/exploration. Take the SAT, ACT, and college assessment tests.   |   |  |  |  |                    |   |   |   |   |
| S<br>e<br>c<br>o<br>n<br>d<br>a<br>r<br>y | 12   | Accounting II #, VE#, Small Business Management, Entrepreneurship, or Business and Financial Management | (Recommend English Course or Senior Project)           | Recommend UC Business Statistics   | Government (semester) Economics (semester) |                    | AP Psychology or AP Economics   | Global Business, Computer Literacy, Business Law, or Financial Sales & Service                                  | Intro to Business <input type="checkbox"/><br>Business Communication <input type="checkbox"/><br>OR Statistics OR Economics | Accounting II Virtual Enterprise (articulates with Intro to Business) |
|   | <b>Recommended Activities:</b> Get involved in YEP, SCORE, or local Business Entrepreneurship Center. Job Shadow, Internship, Work Experience, or Mentorship Activities. Service Learning, Work Based Learning, or Community Service Activities/Organizations (Rotary Interact). Participate in Mock Interviews, application workshops, college and career fairs/exploration. Take the SAT, ACT, and local community college placement tests in Mathematics and English, Meet with community college counselor to develop an educational plan. Get involved in the CEO club. |   |  |  |  |                    |   |   |   |   |

This template assumes students have completed high school exit exams and basic skills coursework. Local graduation requirements may vary.

**Legend:**  
 ⓘ Course is recommended by industry experts  
 # Course is articulated, see comments below.  
 ★ Course may be taken via concurrent or dual enrollment  
 ② Indicates a course that may satisfy multiple requirements

| P<br>O<br>S<br>T<br>S<br>E<br>C<br>O<br>N<br>D<br>A<br>R<br>Y | CTE Courses   |  | Additional and Optional Courses .....                      |   |   | General Education Requirements   |  |  | Occupations Relating to this Pathway  |  |
|---|---|--|--|---|---|--|--|--|---|--|
|   | Acct 110: Financial Acct<br>Acct 120: Managerial Acct   | ...For completion of Local AS/AA Degree (total Units)  | ...For completion of Achievement Certificate (total units) | ...For completion of Skills Certificate (total Units) | Area A English Language Communication & Critical Thinking (9 units) | Area B- Scientific Study & Quantitative Reasoning with 1 lab (9 units) | Area C Arts & Humanities (9 units)   | Careers requiring a high school diploma or equivalent  | Careers requiring a BA / BS degree  |  |
| 13  | Microeconomics and Macroeconomics   |  |  |   | English composition   | Mathematics <input type="checkbox"/> <input type="checkbox"/>          | Arts   | Retail Salesperson<br>Office Receptionist<br>Customer Service Representative<br>Bank Teller<br>Accounting Clerk<br>Cashier<br>Entrepreneur<br>Administrative Assistant   | Business Sales Representative<br>Corporate Trainer<br>Risk Management Specialist<br>HR Specialist<br>General Operations Management<br>Sales and Marketing Management<br>Enterprise Management<br>Credit Analyst<br>Financial Advisor<br>Commercial Lender<br>Management Consultant<br>Operations and Supply Chain Manager |  |
|   | Bus 12: Business Law or Bus 125: Legal Environments   |  |  |   | Oral Communication  | Physical Science   | Humanities   | Careers requiring some post secondary  |   |  |
|   | Select 1 from:<br>Business Calculus<br>Statistics<br>Finite Math  |  |  |   | Critical Thinking   | Life Sciences  | Arts or Humanities (recommended foreign language)  | Careers requiring a BA/BS + (beyond the scope of this template)  |   |  |
|   | Select 2 from:<br>1. Any course from above not selected<br>2. Business Information Systems OR Computer Skills<br>3 Intro to Business # OR Business Communication  |  |  |   | Area D Social Sciences (9 units)                                    | Area E Lifelong Learning & Self Development (3 units)                  | When course requirements are counted for credit in more than one area, i.e. double counted, students must complete additional transferrable units to result in a cumulative total of 60 units. | Executive Assistant<br>Bookkeeper<br>Hospitality Management<br>Retail Manager/Business Management<br>Small Business Entrepreneur<br>Loan Officer (with Certification)<br>Event Planner<br>Insurance Agent (with Certification)<br>International Trade Occupations (with certification)<br>E-commerce | Business Other Instructor<br>CEO/COO/VP/DO/GO<br>Public Relations<br>Advertising Account Executive<br>Certified Financial Analyst<br>Auditor/Controller/Treasurer<br>School Administrator   |  |
| 15  | Suggested Majors:   | Business Administration  |  |   |   |  |  | Careers requiring 2 year degree  | For students interested in attending a UC Campus, be aware that requirements meeting the CSU GE pattern may vary from IGETGE requirements. Students are encouraged to consult college counselor for clarification.  |  |
| 16  | Industry recognized certifications, Credentials, licenses, or apprenticeships related to this pathway   | ROP Certificate of Competencies, MOS or IC <sup>3</sup> Certification, Community College Skill or Achievement Certificates, A*S*K Institute Certifications, Keyboarding Certification (local high school), SAM Certification, Recognition by business organizations - DECA, YEP, FBLA, Rotary, or Virtual Enterprise. Additional certifications available via professional organizations |  |   |   |  |  |  | Office Manager<br>Front Office Supervisor<br>Security and Commodity Agent<br>Customer Service Manager<br>Cost Estimator<br>Purchasing/Procurement Agent<br>Marketing/Public Relations Representative  |  |
|   | Comments: Prerequisite requirements may vary by school and may alter the sequence of courses above.<br>* This template is based upon requirements for CSU transfer pattern and assumes that all basic skills (remedial) coursework is completed. Courses with an emphasis in Business are recommended when they are CSU transferrable.<br>• Where there are course numbers identified, the course number references the CID course. Course content for these courses may be found at www.c-id.net/descriptors. Per Title 5, students may only receive credit for articulated high school work upon completion of a credit by exam mechanism that ensures that the objectives of the community college course have been met. Completion of an articulated course in high school does not guarantee receipt of credit at the community college. |  |  |   |   |  |  |  |   |  |

# Programs of Study include

- High School Courses
- College Coursework: C-ID Course numbers
- CTE transition activities:
  - Articulation
  - Dual Enrollment
  - Concurrent Enrollment
- College Activities
- Occupations specific to discipline
- Certifications, Degrees, Outcomes

# Agreements

- **Articulation Templates**
  - SCP convenes faculty to develop templates
  - Articulation templates facilitate articulation discussion
  - Local agreements also housed in online repository
- Local agreements are generated based on approved templates between a secondary school and a post-secondary institution, usually a community college

# Articulation Agreements

- Similar components to a course outline of record:
  - Course description
  - Prerequisite
  - Course Content
  - Competencies and Skills requirements
  - Measurement Methods
  - Sample Textbook
  - End of Course assessment detail is key piece



# Credit By Exam (CBE)

- Articulation
  - Only waives local requirements – pre/corequisites, placement, etc.
  - Does **not** earn college credit – but can be the basis for allowing credit by exam (CBE)
- Credit By Exam (CBE)
  - Students complete proficiency/mastery exam for college credit.
  - Evaluation must be developed by appropriate faculty
  - Evaluation may be proctored
- Process and procedures must be clear

# C-ID and CTE

- C-ID
  - Course Identification Numbering System
  - Descriptors describe courses
- Transfer Model Curricula in CTE
  - “TMC”
  - 60 + 60 – response to SB 1440
- Model Curricula
  - Certificates
  - “Terminal” degrees

# Online Counselor Tool

- Developed as a result of counselor feedback
- Programs of Study are the foundation of the tool
- Launch in late fall
- Ability to obtain student pathways data and report to CalPASS+
- [Online Counselor Tool](#)
- Provides students a plan for college

# Ideal Pathway Goals

- We serve students who will have seven to nine careers, intelligent pathway design prepares them for this.
- Intelligent pathway design instills:
  - Making use of and adding value to all academic and professional experience, where possible
  - Maximizing student options versus narrowing them by developing both general and specialty skills
  - Foundation skills first
  - Effective and available support services
  - Meaningful credentials that stand on their own



# Questions

- Thank you
- <http://www.statewidepathways.org>
- <http://whodouwant2b.com/student/pathways>
- <http://www.asccc.org/>
  - For papers and this presentation



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